THE

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ORIGINAL COMMUNICATIONS.

Case of communication between the Ventricles of the Heart;—the Aorta originating from both Ventricles. Communicated by Professor DUNGLISON.

[The following case is not unique. Yet the malformations are uncommon, and we are not aware that the subjects have lived so long. Generally, they have died before or about the time of puberty. Rarely have they survived the changes that take place at that epoch; and commonly, as in this case, disease has supervened in some other important organ, the predisposition being caused by irregularity of circulation, owing to the malformation in the great central organ. Throughout life, black blood must have been sent into the aorta; yet, under ordinary circumstances, no cyanosis was apparent. When, however, irregularity was induced in the circulation by any cause, the blueness was perceptible. As the ventricles contract together, but little admixture of the blood of the two sides of the heart appears to have taken place through the inter-ventricular communication. The case confirms the belief, now almost universal, that imperfectly oxygenized and decarbonized blood is not of necessity seriously morbific; and where the pulmonary artery is unusually small, the admixture of venous and arterial blood, owing to the patulous state of the foramen ovale, or other cause, admitting of such admixture, may even be the means of prolonging life.]

Worcester, April 2d, 1845.

To Professor R. Dunglison.

Dear Sir,—In compliance with your request, I send you the particulars, so far as I have been able to collect them, of the case of malformation of the heart, of which I spoke when I saw you last. The girl was Irish, 21 years of age, and had been in the Worcester alms-house about a year, previous to which I know nothing of her history. During her residence there, she was unable to perform any work, or take exercise of any kind, as upon the least exertion or excitement she was attacked with palpitation and dyspnœa, accompanied with some blueness of the skin, all which gradually disappeared on her remaining at perfect rest. She was also subject to attacks of the same kind after dinner, which, during the latter part of her life, came on every day, continuing for two or three hours, even though she remained perfectly quiet, being apparently excited by the mere stimulus of food. She had also a constant and strong rasping *bruit*, accompanying the first sound of the heart, and masking it partially. She suffered much from headache, which, a few days before her death, became greatly increased, accompanied with high febrile excitement, followed by delirium, coma and death. On examination, the septum ventriculorum was found deficient just at the orifice of the aorta, giving that vessel an origin from both ventricles; the pulmonary artery was contracted so as barely to admit the little finger; the lungs were of natural colour, but both were studded from top to bottom with crude and miliary tubercles, none of which were softened; the left lateral ventricle of the brain was filled with pus, the lining membrane being inflamed and thickened, and in the posterior lobe of the same hemisphere was found a cyst the size of a robin's egg, also filled with pus, but having no connection with the ventricle. The substance of the brain presented numerous red points, but was not altered in consistence. No other morbid appearances whatever were observed in the organs examined, which were the lungs, heart and brain. At the time of her death she was menstruating profusely. Blueness of surface was at no time considerable; and it was only observed upon some exertion or excitement, and always in connection with palpitation and dyspnœa,—coming on and disappearing with them.

I regret that I cannot furnish you more minute notes of the case; but should I have omitted anything you may desire to know, I shall be most happy, on the receipt of a line from you to that effect, to give you all the additional information in my power. I should be exceedingly glad to receive your views of the case, and any reflections it may suggest.

With much respect, I am sincerely yours,

Charles Bertody.

Autopsy of a boy who was subject to Epileptic Fits, with loss of Speech, arising from mechanical injury of the head.

Mr. Bunting's son, aged 8 years, has been subject to epilepsy since he was two years old. I have been in the habit of attending the patient during these attacks for about three years. In consequence of indisposition, I requested my young friend Dr. Snowden to visit him for me in his last sickness, and have been favoured with the following particulars of the autopsy, which was made by Dr. S. and will be read with interest.

Yours, &c.,

JNO. A. ELKINTON.

To the Editor of the Medical Examiner.

Philadelphia, March 18th, 1845.

DR. ELKINTON:

Dear Sir:—In compliance with your request I proceed to communicate, as correctly as circumstances will permit, the particulars of the case of which you were kind enough to desire me to make a post-mortem examination.

The history of the case previous to death, as obtained from the child's parents, is as follows. The child, a boy, when between one and two years of age, received (in consequence of a fall) an injury of the head, which was supposed to be a fracture. The situation and character of the osseous lesion I could not learn. The integuments were injured in the anterior portion of the left temporal region, immediately over the zygoma. Some weeks after the injury, a spiculum of bone, about three-fourths of an inch in length, and one or two lines in diameter, was expelled from the left ear. Previously to this time, and subsequently to the injury, there had been more or less sanguineous and purulent matter discharged from the ear. Subsequently to the injury, with gradually diminishing intervals, the boy was attacked with paroxysms of epileptic convulsions up to the time of his death, which occurred at about the age of eight years. Although of this age, he was entirely destitute of the faculty of speech. His powers of audition appeared to be unaffected.

At your request I saw the child, but did not prescribe, because it was very apparent that he was in articulo mortis at that time. He died about two hours after my visit.

Eighteen hours after death, assisted by Dr. McClain, I examined the brain and its coverings. Upon removing the integuments, no sign of previous lesion of the skull could be detected. In removing the superior portion of the skull considerable difficulty was experienced, owing to the unusually intimate adhesion

existing between the dura mater and vitreous table in the temporal regions, and, particularly, in that of the left side. The dura mater in these regions presented evident traces of previous inflammation, and was considerably thickened, that on the left side being at least three times the ordinary thickness. The pia mater and the cerebral lamina of the arachnoid were also unusually dense in the same situation on the left side. The cerebral tissue appeared perfectly natural to the eye. On raising the brain we found evident marks of a previous fracture of the left lesser wing of the sphenoid bone, about three-fourths of an inch from its outer extremity. The course of the fracture appeared to have been directly in an antero-posterior direction, and a portion of the lesser wing had been completely isolated. The fragment had been reunited without material displacement. There had evidently been considerable inflammation at the seat of fracture. The dura mater at this point was very thick, and almost incorporated with the bone.

Upon examining the brain we found the vessels throughout its substance very much congested; and the lateral ventricles distended with serum. No unnatural appearance could be detected in any portion of the cerebral matter.

The conclusion in this case is, that the epileptic affection may have depended upon the unnatural thickness of the membranes covering the brain, or, perhaps, upon some organic alteration of the cerebral tissue itself. The former is, however, I believe, recognised by good authority as sufficient cause for the effects produced in this case.

The serum found in the ventricles deserves no attention, for it is probable it was effused at the time of death, or but a short time previously.

The absence of power to articulate words was probably dependant upon some organic alteration at the seat of origin of the motor nerves of the tongue, or, perhaps, in the course of the neves themselves.

Respectfully yours,

J. W. Snowden.

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*Remarkable Case of Spasm of the Glottis, with unusual Symptoms.** By Benjamin F. Eppes, of Palestine, Sussex Co., Va.

Mr. Editor:—I send you below a case which I consider uncommon, as you will see by comparing the symptoms with any known disease. I hope you will excuse me for omitting to give it any caption.

History. R. C. E., a child 15 months old, robust and healthy,

*The caption is given by the Editor.

was attacked at the age of six weeks (after suffering from its birth with catarrh,) with suspended respiration and lividity of countenance, which symptoms went off after some three or four hours of intense suffering. The child fattened and grew rapidly, became perfectly healthy, and deserved the appellation robust, as above remarked. On the evening of the 15th month he was attacked, without any premonitory symptoms; being as well, until the following symptoms were discovered, as he was ever known to be. He was put to bed at 9 o'clock, P. M.; my wife and self entered the room about 15 minutes past nine, and found him, as I thought, snoring and in a sound sleep. We thought no more of it until he was removed from the cradle to the bed; not then waking or ceasing the stertorous breathing, I was requested to examine him. On examination I found no symptoms of disease; the throat was not swollen externally, he had no fever, the skin natural, slight moisture on it. I recommended that the feet be tickled, thinking it would arouse him; but not so. I then had a pepper poultice applied to the throat, expecting it to arouse him. This failing, except for a very short time, (it cried a little and drank a mouthful or two of water, and relapsed again into its deep sleep.) There had nothing like spasm occurred up to this time, (about 11 o'clock.) There was no cough;—pressure around the throat, under the chin, and angle of the jaw, did not seem to produce pain; there was no lividity of countenance; the respiratory muscles seemed to be thrown into violent exertion to continue the function of respiration. The eyes were closed as in sleep, but a glutinous secretion seemed to come on which soon glued them together; the eye, when the ball was exposed, seemed to be natural; the pupil sensible to light.

I shall not attempt a diagnosis—as the only diseases which it may be mistaken for are acute laryngitis, spasmodic croup, œdema of the glottis, inflammation of the epiglottis, or spasm of the glottis—where all will find that none of these symptoms commence with coma.

Treatment.—I prescribed calomel, 4 grs.; ipecac. 4 grs. repeated every fifteen minutes until emesis was produced. The first dose caused a spasm of the glottis, the respiration not returning for a minute and a half, and was only produced by compressing the ribs and abdomen as in artificial respiration. The warm bath also was resorted to—lividity occurred, the respiration at last returned, and remained for about twenty minutes, when another spasm occurred, but not attended by so much lividity. Breathing restored by the same means. A flannel dipped in spirits of turpentine and applied to the throat produced redness, and yet no amelioration of symptoms. Dr. Field was now called in (a practitioner of great experience in diseases of

children, having practised for twenty years extensively.) We bled the little patient from the arm to 3 or 4 ℥, but no abatement of the symptoms occurring, a large blister, covering the anterior of the thorax, and another on the back of the neck, were applied, both of which drew well, but the surface of each was pale; this was about 3 o'clock, the asphyxia occurring every twenty minutes from this time until about six o'clock, when the intermission was lengthened to half an hour, the longest time being two hours. I would here say, that moving the patient seemed to bring on the suspension of respiration. We attempted two or three times to give an emetic of antimonial wine, but it always produced suspended breathing. About 11 o'clock, A. M., there was spasm of the flexor muscles of the fore arms only; the eyes also rolled back and a distinct spasm occurred; five or six of these followed; the pulse was regular during the breathing but increasing in frequency; the cheeks commenced flushing after each suspension of respiration.

The child lived until twenty-five minutes past four. From about the first spasm (I think it was) a double flap occurred in the breathing. The last remedy used was the mustard bath, (excepting injections of tr. assafœtida, calomel, and castor oil.) The patient did not live five minutes after it was placed in the bath, which was not done until a spasm or asphyxia came on. To prevent any one from coming to the conclusion that these symptoms were produced by a foreign body in the larynx, I will state that the child ate his supper about seven o'clock, and sat up until nearly nine.

N. B.—I have sent this case to elicit information; there was no post mortem examination, but the right side to the median line became livid, while the other kept its natural colour; this was seen also in the blister.

March 15, 1845.

CLINICAL LECTURES AND REPORTS.

PHILADELPHIA HOSPITAL.

Saturday, January 11, 1845.

CLINIC OF PROFESSOR DUNGLISON.

Reported by Dr. Samuel G. White, of Georgia.

Professor Dunglison directed attention, in the commencement of the lecture, to the progress of the cases of JAUNDICE, which were under consideration at the preceding clinic; and which were again exhibited to the class.

One of the patients has greatly improved; every character of the affection, with the exception of slight discoloration of the urine, having disappeared. The bile having resumed its natural course, the skin and tunica conjunctiva have regained their normal appearance, and convalescence is fairly established.

The other case has not proceeded so rapidly, although there is an improvement. The urine continues high coloured, and the yellow tinge of the tissues remains, showing that a considerable quantity of bile still exists in the fluid of the circulation. He has been put on the use of the iodide of mercury, in doses of the one-sixteenth of a grain three times a day, combined with three grains of extract of gentian as a constituent. From the opinion that it has a special action as a "deobstruent" on the abdominal viscera, many practitioners are in the habit of prescribing the extract of taraxacum, instead of that of gentian, in such cases. Whether it have this action, however, the lecturer considers extremely doubtful. He has never seen the slightest evidence of it; nor is it at all probable, that the dandelion possesses the properties so vaguely ascribed to it. It probably has no advantage over the gentian.

A combination of iodine and mercury is peculiarly appropriate in cases like the one in question, where a tonic and eutrophic influence is demanded. When given in large doses it produces ptyalism; but in the minute quantities directed in this case, it will probably have no such effect. The lecturer has found it as easy to affect the mouth with this salt as with any of the preparations of mercury.

In addition to the iodide, a saline has been ordered, with the intention of augmenting the intestinal secretions, and at the same time of exerting a degree of traction downwards on the hepatic

ducts. At present, there is slight tenderness over the epigastrium, which may be attributable to the medicines prescribed.

As there probably exists no material organic disease of the liver, this patient will, in all likelihood, recover, although the case may be tedious. The result will be reported on some future occasion.

The lecturer then proceeded to exhibit a case of

INDURATION OF THE CELLULAR TISSUE.

When the patient—an adult male—was first seen, he presented some peculiarity. He entered the hospital in December last, complaining only of slight cold, with daily fever, and firm tumefaction of the limbs. There was some difficulty in connecting this condition of the cellular tissue with the constitutional disturbance. The professor, however, presuming it to be dependent on organic lesion of some solid viscus, instituted a careful examination, which resulted in the detection of inflammation of the endocardium—ENDOCARDITIS.

The *bruit de soufflet*, or "bellows sound," which is the most prominent physical sign of endocarditis, was well marked, but it has now entirely disappeared. It must be borne in mind, however, that the bellows sound is not always indicative of the actual presence of endocarditis. It may be produced by a narrowing of the aortic or pulmonic, or auriculo-ventricular orifices, or by simple hyperæmia of the endocardium; and, as the lecturer has before remarked, occurs in chlorosis; but the diagnosis of endocarditis may be determined by an investigation of the accompanying functional phenomena.

In addition to the evidences of endocarditis, there were, in this case, others, indicative of PERICARDITIS with liquid effusion. The dulness over the cardiac region was increased in extent, and the sounds of the heart, in consequence of the effusion, appeared to proceed from a distance. These phenomena have now, however, disappeared under the treatment prescribed,—a circumstance which confirms the diagnosis.

When the presence of these cardiac affections was detected, the tumefaction of the limbs became of less moment; yet it was far from being devoid of interest.

Induration of the cellular tissue—*endurcissement du tissu cellulaire*—is very prevalent in the hospitals for sick children abroad, and is often attended with fatal results. In this country it is rarely seen. The cause of its great fatality is not understood, but it is not improbably connected with the organic lesions of the solid organs, that usually accompany and cause it.

Billard is disposed to consider it similar to ordinary dropsy; the only difference being, that the fluid portion of the liquor sanguinis is in this case absorbed, leaving the fibrinous element in the cellular tissue. When the limbs so affected are examined, they are found very resisting, at times, as hard as board. This hardness was well marked in the present case, although, as the class may observe, it has now much diminished.

The lecturer remarked, that in the treatment of this, as of all other affections, the pathological cause should, if possible, be detected, and removed by appropriate measures. From the existence of endo-pericarditis in this case, it became a question, whether it should be treated by active antiphlogistics, disregarding the existing anæmic condition of the system, or whether an opposite plan might not be more judicious. When such a case first presents itself, cups may be applied over the cardiac region, or venesection may even be advisable; but generally it soon becomes necessary to have recourse to less active measures; and manifest advantage accrues from the use of the sulphate of quinia as in rheumatism; these inflammations of the heart, especially in those of broken down frames, being frequently connected with a neuropathic condition of the system, like that which exists in rheumatism, and demanding an analogous treatment.

In the present case, the preliminary use of depletives was unnecessary, as the effusion indicated, that the inflammation had terminated; and, accordingly, the treatment by quinia was at once instituted. Under its employment the patient has improved astonishingly;—the signs of endocarditis and of pericarditic effusion having entirely disappeared.

The lecturer here remarked, that it is by no means easy, at all times, to detect the existence of pericarditis or of endocarditis. The phenomena have, indeed, been so latent, as to pass away entirely without the disease having been suspected; whilst at other times some functional expression has directed the attention of the physician to the heart,—as dropsical effusion, or tumefaction of the limbs, like that in the present instance. Not unfrequently, again, it has happened, that an inflammation of the heart has passed through its whole course without the functional disturbance having attracted the observation of the practitioner to that organ; and dissection alone has revealed the true nature of the lesion. In such cases, the physical signs occasionally afford invaluable aid; yet in pericarditis they may be so obscure as not to lead to any definite diagnosis.

The patient under consideration is manifestly in a cachectic condition; and it may be best to send him away from the wards into the open air, whilst the tonic plan of treatment is continued.

An inference from the happy results in this case would be, that there need be little hesitation, in such cases, in the administration of the sulphate of quinia, where there are no positive special contraindications. It must be borne in mind, that the sulphate of quinia is not a powerful excitant; but rather, as regarded by the Germans, a tonico-paregoric, since it may be adapted for cases where excitants proper might be injurious.

The next case to which the attention of the class was directed, was that of a female labouring under a nervous affection, characterized essentially by

TREMORS.

When the symptoms first presented themselves they seemed to be periodical, and were supposed to indicate intermittent fever; but, on examination, there were no positive evidences of intermission—no marked cold, or hot, or sweating stage.

At present, there are no very prominent phenomena of any kind; and she is introduced before the class, the professor remarked, merely to show the difficulty that occasionally exists in arriving at any exact conclusion, either as regards diagnosis or therapeutics. He is much disposed to believe, that the affection is assumed, from the circumstance that the tremors are always most violent during the visits of the physicians in attendance. Under this impression, formed after one or two visits, he had prescribed a variety of the '*mistura diabolica*' of the military hospitals, which consists of a union of the tinctures of assafœtida, castor and aloes, with or without the aromatic spirit of ammonia, given repeatedly, so that the nauseous impression may be constantly on the tongue. In feigned cases of disease, the individual will rarely submit for any length of time to this disagreeable discipline; at the same time, it must be borne in mind, that it is upon the impression made on the gustatory nerves, and on those of the stomach, by "antispasmodics," that we depend principally in the treatment of hysteria; and hence, that the mistura diabolica, if successful, may not establish that the malady is assumed. Certainly benefit has resulted from the mixture.

Professor Dunglison next drew attention to some

PATHOLOGICAL SPECIMENS.

The first was from a patient that died very soon after entering the hospital, and is interesting merely in its morbid relations, as no treatment was pursued in the case.

The patient, aged 59, was a man of very intemperate habits, and

lived irregularly,—being dependent on the bounty of his neighbours for sustenance. He was so debilitated when he was received into the house, that no satisfactory examination could be made; but there was sufficient evidence of the existence of PNEUMONIA.

The lecturer observed, that his main object in exhibiting the specimen to the class was, to point out the appearances presented by a lung in the stage of purulent infiltration, or gray hepatization, which succeeds the stage of red hepatization. When this purulent secretion exists in pneumonia, the matter is rarely collected in abscesses, but is generally extensively diffused. It is uncommon, indeed, to find an abscess the consequence of inflammation of the pulmonary tissue.

The lung in this, as in all cases of a similar character, has lost its normal consistence, and has become exceedingly friable, so that the finger—as the lecturer showed—can be readily passed through it. [He here handed a portion of the lung to the class for examination.] In some parts of the lung—gentlemen would observe—there was also well marked, what has been termed the hyperæmic or congestive stage—a simple engorgement of the tissue, without any consolidation or breaking down of structure.

The left lung was almost entirely impermeable to air, and yielded a flat sound when percussed. The upper portion of the right lung was slightly affected, but the greater part of it was healthy. There were also slight adhesions between the pleura costalis and the pleura pulmonalis—the consequence of a previous inflammation of that membrane.

There was one other appearance to which the lecturer thought it proper to direct the attention of the class—as the physiology of the organ involved would soon form the subject of a lecture at the Jefferson Medical College—a diseased condition of the capsule of the spleen, without any alteration in the body of the organ. The glandiform body, in this case, was more lobated than natural, and its capsule was very much thickened, indicating that it must have been, at some time, the seat of active inflammation This inflammation, however, was manifestly not of recent date, and, consequently, could not have been the cause of death.

SPLENITIS is not an uncommon affection in malarious districts, in which the viscus, in consequence of the repeated congestions to which it is subjected, may become inflamed, or have its nutrition otherwise modified.

The diagnosis is not generally difficult. There is usually acute pain in the left hypochondrium, which is greatly increased by pressure, or motion of the part, and there may be, at the same time, if the spleen be engorged, dulness on percussion over a larger space than usual. The constitution, in acute cases, may be affected as in other cases of internal inflammation; but it rarely sympathizes to

the same degree as in inflammation of more important organs. It may be confounded with peritonitis of the parietes of the abdomen; but as the treatment is the same, this would be of little importance. In the present instance, the capsule was principally affected, as the tissue of the spleen presents its normal appearance.

From a consideration of the *post-mortem* appearances, it is evident that death resulted in this case from pneumonia.

TUBERCULOSIS OF THE INTESTINES.—This interesting specimen was obtained from a child 6 years old, who laboured also under scrofulosis of the spinal column. The lecturer did not see this case during life, as it occurred in another part of the establishment. The specimen was kindly brought to him by Dr. Wilson—one of the resident physicians of the hospital—under the well-founded idea, that the lecturer might consider it worthy of some pathological observations to the clinical class.

The whole of the peritoneal surface was shown to be completely studded with tubercles, presenting an excellent example of TUBERCULAR PERITONITIS. The inflammation, in this instance, must have been very extensive, although it was but little manifested during life. Whenever tubercles exist in any other part of the organism, they are generally found also in the lungs. In this case, the number there is very small.

In addition to the symptoms of caries of the spine, there were others of cerebral irritation, and it became a question, whether there might not be a tuberculous condition of the meninges of the brain, which is not unfrequent in scrofulous children; and has been shown by Papavoine, Fabre and Constant, Rufz, and by one of the lecturer's colleagues in this hospital—Dr. Gerhard—to be the anatomical character in many cases of acute hydrocephalus.

On examination, in this case, the encephalic meninges were not found diseased, and the cerebral irritation was, therefore, probably sympathetic.

The most remarkable feature of tuberculosis of the intestines or peritoneum proper is, that there are occasionally no very marked symptoms of its existence during life. It is, indeed, by no means an uncommon occurrence for death—as in the present case—to result from this cause, when its existence was scarcely or not at all suspected. The same remarks apply, indeed, to ordinary chronic peritonitis, which is often unmarked by pathognomonic phenomena.

The lecturer, by way of illustration, narrated a highly instructive case of a young lady in whom chronic inflammation of the peritoneum, producing distension of the abdomen, partly from purulent effusion, but mainly from tympanitis, was treated for ordinary ascites by one or two physicians, called in a few days only prior to dissolution.

There were, at the time the lecturer saw her, about two months before her death, no prominent manifestations of peritonitis. Attention, indeed, was mainly directed to the condition of the uterus and ovaries. The body, when placed upon the table, exhibited great abdominal distension; but on percussion, it was manifest that this was caused almost wholly by air. It was proposed, that a trocar should be first introduced, when, not a little to the astonishment of the physician last in attendance, the supposed dropsical effusion proved to be mainly a collection of air,—the abdomen immediately subsiding on its escape. Dissection exhibited that extensive chronic inflammation of the intestinal peritoneum had glued the folds of the intestines together, and that perforation of the intestines had occurred,—some of their contents, mixed with pus, being found in the cavity of the peritoneum. Such cases sufficiently show the latent character of this disease, and the consequent difficulty which must exist in the diagnosis. A similar latency is not unfrequent in chronic pleuritis.

Tubercles of the peritoneum may be either the cause or consequence of inflammation. In the vast majority of cases, they probably exist first, and, by their presence, excite fatal peritonitis.

In concluding, the lecturer begged the members of the class to examine these morbid specimens closely for themselves; reminding them that it was here, and in similar establishments only, that opportunities existed for pursuing, with full advantage, their researches in pathological anatomy.

BIBLIOGRAPHICAL NOTICES.

Lectures on Animal Heat. By Thomas Spencer, M.D., Professor of the Institutes and Practice of Medicine in the Medical Institution of Geneva College. 12mo., pp. 114. Geneva, N. Y., 1845.

This little book comprises the lectures of Prof. Spencer on animal heat, published at the request of his class. In endeavouring to answer the question, what is the source of animal heat, he has discussed the kindred subjects of nutrition and sanguification. In the brief notice which we are able to present of his performance, we cannot enter into a particular examination of his alleged facts and reasonings, in the order in which he has

presented them, but merely propose to give our readers a general idea of the contents of the book.

In explaining his views, Dr. Spencer has not been backward in appealing to chemical affinities, acting under the control of the vital forces. Indeed, in this respect, he has raised a much higher superstructure of speculation than Liebig himself, and upon a much narrower foundation of facts. He conceives that the dark colour of venous blood depends upon a pigment, consisting of carbon, hydrogen, and oxygen, which, as he supposes it to contain hydrogen and oxygen in the proportion to form water, he calls *hydrate of carbon.* The theory which maintains that a combination of hydrogen and carbon, called *hydro-carbon,* is thrown off from the blood in the lungs, is objected to by the author, because it is an imaginary compound; but we would ask, is not the author's hydrate of carbon an imaginary compound? It is true that Dr. Spencer contends that his hydrate of carbon is analogous to, if not identical with, the lignin of vegetables; yet not intended, like lignin, to be deposited as an element of growth, but destined to be eliminated, as an excrementitious substance, by the lungs and skin. If these considerations are sufficient to make the "hydrate of carbon" a real and not a hypothetical substance, reasons not less cogent would make the "hydro-carbon" of blood a real compound; since compounds of the same elements are known to exist out of the body.

Dr. Spencer not only imagines that a compound of the nature of lignin exists in the venous flood, but exists there in the solid state! To show that we have not misunderstood him, we give his own words:—"You may say, from what has been advanced, that these dense atoms of hydrate of carbon, being the components of woody fibre, must be infinitesimal blocks of wood, floating in the sanguineous mass. This is, doubtless, true." p. 31.

All the theories of animal heat of any importance suppose the oxidation of carbon, or of carbon and hydrogen to be its source. Where this oxidation takes place, and under what peculiar circumstances, are the chief questions to be answered. In order to explain why heat is given out when carbon is converted into carbonic acid, and when gases and liquids are solidified, Dr. Spencer goes into some explanations in relation to the capacities of bodies for heat. On this subject our knowledge is very im-

perfect. In the case of the conversion of carbon into carbonic acid, it is not necessary to prove a diminution of capacity in the product compared with the capacity of the oxygen consumed, before we can assume that caloric is extricated. It is sufficient to know that, during the quick oxidation (combustion) of carbon out of the body, much heat is given out, and to feel assured from chemical laws, that a similar oxidation, by gaseous oxygen, cannot take place within the body, without the emission of the same quantity of heat. It is a reasonable theory that gaseous substances, weight for weight, contain a larger quantity of caloric than the liquids or solids from which they are formed; yet matter, when gasefied by the energy of chemical forces, does not always absorb an additional amount of caloric, or, in other words, produce cold. Thus, when we pour muriatic acid on chalk, we get a large quantity of carbonic acid gas, derived from the same acid in the solid state, and yet cold is not produced. The result of such experiments seems to show that certain gases, when condensed by chemical combination, carry with them, in their condensed state, all the caloric which they had previously contained.

The theory, formerly most prevalent in regard to calorification, was that animal heat had its source in the lungs. The theory of the day is, that it is generated in the systemic capillaries, during the conversion of arterial into venous blood. Dr. Spencer supposes animal heat to be extricated in both these localities. In the systemic capillaries, he assumes that his hydrate of carbon is formed from water and from the carbon of carbonic acid; and as he views the hydrate to be a solid, floating in the venous blood, he considers its formation as necessarily attended with the extrication of caloric, because in it water and the carbon of carbonic acid are solidified. After the hydrate of carbon arrives at the lungs as a constituent of the venous blood, it undergoes what is equivalent to combustion. The hydrogen present, being saturated with oxygen, does not burn; but the carbon forms carbonic acid with the oxygen of the air in respiration, and generates in the lungs sufficient heat, not only to vaporize the water of the hydrate of carbon, but to be extricated in a free state. As the hydrate of carbon, by the assumption made, obtains its carbon from carbonic acid, the author, at first, is somewhat puzzled to know what to do with the oxygen of the acid. Finally, he dis-

poses of it by uniting it with the protoxide of iron in the blood. We have here a number of postulates;—first, there is formed a hydrate of carbon during the conversion of arterial into venous blood; secondly, it is a solid, though the blood in which it is alleged to exist as a solid, is, throughout, a perfect liquid; thirdly, its formation causes an extrication of heat, because it is a solid formed from a liquid and a gas. Now, this same carbon, which, being condensed from carbonic acid, helps to produce free heat in the systemic capillaries, causes a fresh extrication of heat, by combining back again with oxygen, in the pulmonary capillaries. Here, it appears to us that too much is taken for granted. Can it be admitted, in the legitimate sense of the word solid, that solid matter floats in living blood as it circulates in the veins?

The speculations of Dr. Spencer are illustrated and enforced by a number of diagrams, in which the elements are denoted by their appropriate symbols. In them, the author has occasionally mixed up the notation of Berzelius with that of Liebig and Poggendorff, by sometimes denoting degrees of oxidation by dots, at other times by the symbol O.

We have marked several passages in these Lectures which contain errors, or statements of doubtful authority. At p. 2, the obsolete statement is made that atmospheric air contains one per cent. of carbonic acid; whereas, on an average, it contains only about one part in two thousand. We have nowhere met with the statement made by Dr. Spencer, that Dalton estimated the latent heat of oxygen to be *four times* as great as that of carbonic acid gas. Neither do we believe that rain water contains common salt; although a passage in Liebig's Agricultural Chemistry seems to support this opinion.

This book is disfigured by a number of typographical errors, which may be excused on account of the hasty manner in which, to answer the wishes of the Professor's class, it was necessary to send the sheets to press. (*Preface.*) The paper is good, and the type clear and distinct, merits which much enhance the pleasure of reading a book.

Upon the whole, we rise from the perusal of Dr. Spencer's book, with the impression that he has shown much ingenuity in his attempt to explain several of the intricate functions of the

vital organism. If the author has speculated too much, let us hope that he will hereafter atone for the error, by endeavouring to add to our stock of physiological facts.

Principles of Forensic Medicine. By WILLIAM A. GUY, M. B. Cantab; Fellow of the Royal College of Physicians; Professor of Forensic Medicine King's College, London, &c. &c. First American Edition. With Notes and Additions, by CHARLES A. LEE, M. D. Professor of Materia Medica and General Pathology in Geneva College, &c. &c. 8vo. pp. 711. New York, 1845.

The appearance of two works, like those of Mr. Taylor and Dr. Guy, about the same period, and in a country—Great Britain—where the valuable Treatise of our friends and countrymen —the Doctors Beck—had reigned so long predominant, would seem to indicate a greater degree of attention to the subject of Forensic Medicine than has hitherto prevailed. An impulse has perhaps been given to their production by several interesting questions of a medico-legal nature, which have, of late years more especially, agitated our own as well as a sister profession.

Of the American edition of Mr. Taylor's work we have already spoken in terms of commendation; and likewise of the English edition of Dr. Guy's "Principles." Our attention will, therefore, be mainly directed to the additions which have been made by the American Editor. Before, however, we proceed to this examination, we may express our regret, that so much acerbity has been indulged in by Messrs. Taylor and Guy in regard to disputed questions of *originality*,—a word which, by the way, we are heartily tired of hearing in the sense in which it is usually employed. Dr. Guy was a pupil of Mr. Taylor,—followed his lectures at Guy's Hospital, and necessarily imbibed the tone of reflection, and often, doubtless, the very words that were employed by the master. It would have been difficult, indeed, for him to avoid this, and scarcely desirable if it had been practicable,—provided the tone and words of Mr. Taylor

had been worthy of imitation, and we have no doubt they were.

It was but necessary that Dr. Guy should express his acknowledgments to Mr. Taylor, which he has done in a general manner in his Preface, so far as regards a published work of the latter, but this partial acknowledgment does not appear to have been entirely satisfactory. We think that Mr. Taylor ought to have been content with this reference to one of his works; although it might have been more creditable to Dr. Guy if he had likewise referred to his indebtedness to the lectures of Mr. Taylor, provided his notes of those lectures had been freely—as is affirmed—employed by him. When we see—as we have seen—even in the pages of one of our prominent medical periodicals, whole passages taken from the works of another, and copied as *editorials*, with scarcely the change of a word or letter, and without the mention even of the name of the real author, we are gratified to find even a general acknowledgment to a work that has been extensively used by an author, inasmuch as such acknowledgment indicates no attempt at concealment; or at all events points out to one, who is desirous to investigate the truth, the real source. Unquestionably, where facts, opinions, and views peculiar to a writer, or presented by him in a novel and striking manner, are cited, full credit ought to be given to the original observer; but it would be idle to load the pages of scientific treatises with such references, in the case of common descriptions,—as of ordinary surgical operations, articles of the materia medica, &c., in which there can necessarily be but little more difference of expression than would exist in describing a common geometrical figure. Leaving this disputed question, however, we may reiterate our conviction, expressed on a former occasion, that Dr. Guy's work is one of great value; and after a careful examination of both it and the "Manual" of Mr. Taylor, we are equally convinced, that the reflecting practitioner may advantageously possess himself of both one and the other. When reprints of works like this of Dr. Guy, or the Anatomy of Cruveilhier, make their appearance, we hail their advent with real pleasure, and frankly state our opinion of the exalted merits of the originals; whilst we as frankly animadvert on those of an inferior grade of merit,—such as that of Chailly on Midwifery,

or of Magendie on Physiology,—and we instance these works—admitted by competent observers to be imperfect exponents of the state of Obstetrics and Physiology of the day—because it has been unworthily suggested by interested parties, that motives of a sectional character, which we contemn, have unduly biassed us in our judgment.

In his preface, after a somewhat overstrained eulogy of the work of Dr. Guy, the American Editor thus expresses himself.

"To the Editor was assigned the task of revising the text, correcting errors, and adapting the publication to the existing laws and institutions of this country. Leaving the text in its integrity, he has, accordingly, taken the liberty of making somewhat extensive additions, (in brackets,) citing numerous American authorities and decisions, with ample references, to render the work in the highest degree useful to those classes for which it is especially designed. * * * * The Editor has freely used the materials within his reach, giving due credit, however, to the sources whence his information has been derived. The recent Manual of Mr. Alfred Taylor has furnished some very valuable details, which will be found under their appropriate subjects." p. vi.

In casting our eyes over the book, we find the additions numerous, and, in most cases, judicious and pertinent. Dr. Lee is not, however, as rich in home authorities as we had expected from his well known industry. For example, under the head of Hypospadias as a cause of impotence, we find one additional case only cited by him; and that occurring to his respectable townsman Dr. Francis,—who, by the by, appears to be the great medical authority with the writers of the "Commercial Emporium"—whilst had he referred to the works on Medical Jurisprudence and Physiology at his elbow, he might have culled many equally worthy of being cited—not that it was important, however, to adduce either them or that of Dr. Francis. We confess, too, that we scarcely expected to see in a medical work the case of "Tittlebat Titmouse, Esq.," brought forward as a part of medical history!

In an addition, at page 57, Dr. Lee adopts the common opinion, that the long continued and excessive use of iodine has occasioned absorption of the testis, citing a case that had occurred in

New York. We do not deny the possibility of such absorption. We know that it has been asserted over and over again. Yet we must say, that after an observation of cases without number, in which the various preparations of iodine have been pushed as far as the system would bear them, we have not met with a solitary example, nor have we heard of one in the practice of any one of our friends.

Under the "signs of pregnancy" we find no reference to the results of experiments made in this country on Kiesteine by Drs. Perry and McPheeters, and by Dr. Kane; the last of whom has published the most satisfactory monograph on Kiesteine that we possess.

On the subject, too, of the uterine murmur as a sign of pregnancy (p. 98) it would have been advisable to state, that there is much reason for, the belief that it indicates merely the presence of a solid body pressing on the great vessels of the mother; and, therefore, is by no means pathognomonic of pregnancy. So, also, in regard to the corpus luteum, it would have been well to refer to the views of Négrier, Raciborski, Bischoff, and others, as respects the regular discharge of infecund ova at each menstrual period, and to the bearing which these views have on the question of corpora lutea as evidences of conception.

But, we admit that it is easy to suggest omissions; and to overlook the valuable additions that have been made. On the whole, we do not hesitate to say, the American Editor has most industriously and, we think, ably executed his task; and his labours are deserving of the patronage of his professional brethren.

ACCIDENTS—*Popular directions for their immediate treatment; with Observations on Poisons and their Antidotes.* By HENRY WHEATON RIVERS, M. D., Surgeon to the United States Marine Hospital, Providence, R. I. 12mo. pp. 108. Thomas H. Webb & Co. Boston, 1845.

As a general rule, we look upon all attempts to popularize medicine by the publication of works containing directions for the treatment of accidents and diseases by those who have not devoted

themselves to a thorough understanding of the science, as pernicious to the public, and disreputable to their authors. We are almost inclined, however, to make an exception in regard to the little work of Dr. Rivers. It is a plain, sensible, and unpretending production, better calculated for the object proposed by its author than any other of the kind with which we are acquainted. Young physicians will find it convenient for reference in the absence of more elaborate treatises, while intelligent laymen can hardly go wrong in following its directions in emergencies, when a skilful practitioner is not at hand.

A Treatise on Poisons, in relation to Medical Jurisprudence, Physiology, and the Practice of Physic. By Robert Christison, M.D., F. R. S. E., Professor of Materia Medica in the University of Edinburgh, Fellow of the Royal College of Physicians, etc. etc. etc. First American, from the fourth Edinburgh Edition. In two parts. 8vo. pp. 756. Barrington & Haswell. Philadelphia, 1845.

This first American Edition of Dr. Christison's work on Poisons, comes to us in two parts—the one in January, and the other in April—as the quarterly portions of the Select Medical Library, edited by Dr. Bell.

It would be a work of supererogation, at the present day, to speak of the merits of this work. It has long and justly been regarded as one of our standard authorities. The fourth Edinburgh Edition, of which the present is a reprint, was republished in that city in November last, (1844,) and on every subject the author has been careful to post up the latest information. We know, indeed, of no one who is more careful in this respect, evinces more judgment and discrimination in the selection of his materials, or is more scrupulously just in referring to those from whom he has derived them. In the republication of such a work, the Editor and Publishers have conferred a great favour upon the profession in this country.

1. *Annual Report of the Managers of the (N. Y.) State Lunatic Asylum, made to the Legislature, January 31st,* 1845. Albany, 1845.

2. *Twenty-fourth Annual Report of the Bloomingdale Asylum for the Insane, for the year* 1844. New York, 1845.

3. *The Annual Report of the Eastern Asylum in the city of Williamsburg, Virginia, for* 1844. Richmond, 1845.

4. *Annual Report of the Managers of the (Kentucky) Lunatic Asylum.*

1. The report of Dr. Brigham, like every thing else from his pen, is a well written document, and may be noted for brevity and accuracy of expression,—qualities, by the bye, which might be more studied by some of our writers of reports to the advantage of their readers, though the number of pages produced might in consequence be somewhat lessened.

At the beginning of the year, the number of patients in the Asylum was—

	Men.	Women.	Total.
	101	95	196
Admitted since,	132	143	275
Total number during the year,	233	238	471

Of this number there have been discharged—

	Men.	Women.	Total.
Recovered,	61	71	132
Improved,	26	21	47
Unimproved,	8	8	16
Died,	7	9	16
Total discharged during the year,	102	109	211
Remaining November 30, 1844,	131	129	260

In order to a correct understanding of these results, he explains what is meant by *recovered* and *improved* as follows:

"By recovery we generally mean a complete restoration of the mental powers. Most of those thus classed, when they left us, appeared not only to be sane, but to possess as sound and vigorous minds as before they were insane. But some few,

though called recovered, and so considered by their friends, appeared somewhat eccentric or droll. They were not insane, and yet they could hardly be said to possess sound and vigorous minds. For the most part we find, on inquiry, they never had. Such individuals, after having had an attack of insanity, and been at an Asylum for the Insane and recovered, are ever after considered mentally deranged, though they are not, in fact, more so than they were previous to the attack.

"In some instances, though we are surprised at their rarity, the disease itself seems to have so impaired the physical system that the mind never fully regains its former power and activity, though the individuals become perfectly sane. On the contrary, the minds of some are actually improved by an attack of insanity. We have seen a considerable number of such cases, and we believe they will be more frequent when schools are generally established in Asylums, and books are plentifully and judiciously supplied to patients."

In 417 cases, in which the exciting causes of the disease are stated, the moral and physical are in the following proportions :—

Moral.—Religious anxiety, 77; loss of property, 28; excessive study, 25; death of kindred, 17; Millerism, disappointment in love, and other moral causes, 90. Total, 237.

Physical.—Ill health, 104; puerperal, 30; intemperance, 18; other physical causes, 28. Total, 180.

Among the novelties in the treatment of the insane, in which the prevailing spirit of the day is so fruitful, may be noticed a fair which was held at the Asylum the past year, and which is spoken of as follows:—

"Last year a fair was proposed, and the women engaged in it with such alacrity and spirit, that in a short time they made a great number of curious and beautiful articles; and in January, on the anniversary of the opening of the Asylum, the fair was held. From the sales at that time, and of articles made by the women and since sold, we realized a sufficient sum to purchase a considerable addition to our library; some musical instruments; a ticket of admission for all the inmates of the Asylum to the Museum in Utica for one year; and also to erect a handsome green-house. The green-house we find to be an admirable ap-

pendage to our establishment. Already we have in it four hundred flourishing plants, and it is the daily resort, in winter, of many of the patients.

"But the greatest good which resulted from the fair was, the pleasure which the devising and making of various articles afforded to many of the patients; and we hesitate not to say, that to several it was the means of restoration. Preparations for another are now in progress, with the like beneficial effects upon those engaged in it. We are confident that more good has resulted to our patients, from their mental and bodily labour connected with these fairs, than from all the various games and plays they have ever resorted to; and they have had recourse to many, such as battledoor, historical games, Dr. Busby's Mansion of Happiness, lottery games, Pickwick cards, &c. &c."

2. The report before us is the first from the pen of Dr. Earle, since his connexion with the Bloomingdale Asylum, and, as might have been expected, sustains the reputation of its author for industry and talents in the treatment of the insane.

Number of patients in the Asylum January 1st, 1844.

	Males.	Females.	Total.
	53	47	100
Admitted during the year,	57	49	106
In the Asylum during the year,	110	96	206
Discharged during the year,	56	46	102
Remaining Dec. 31, 1844,	54	50	104

Of the patients admitted during the year, there were, of those whose disease was supposed to be of less than one years' duration, and called recent, 69

Of more than one years' duration, and called chronic, 37

Of the patients discharged, there were

Recovered,	50
Improved,	27
By request,	12
Died,	13

In relation to the treatment of Insanity, the Doctor says:—"There are many persons in the community who believe in-

sanity to be purely and exclusively a disease of the mind, and consequently set at nought all medical remedies. Many physicians, also, particularly those of Germany, among whom are Hoffbauer, Heinroth, Reil, Benck, and Langermann, concur in this opinion, so far as regards the seat of the disease, but most of them acknowledge the utility of medicines in effecting a cure. Levret, a French physician, who has adopted the theories of the German school, is the only one, so far as I am informed, who maintains that the disorder may always be cured, if it be curable, by moral treatment alone. On the contrary, it is the opinion of a large majority of the physicians of the present day, that the disease is always bodily, and that the mind appears to be disordered only because the organ, through which its operations are manifested, is not in a condition of health. The latter opinion appears the more rational, as it is more consistent with the general principles of physiology, and with the commonly received ideas of the spiritual nature of man. But how diverse, soever, may be the sentiments of individuals in reference to the seat of the disease, it is now generally conceded that the most effective treatment is that which unites, in judicious proportion, the variety of means included by the two divisions already mentioned."

In regard to the free use of the lancet, as employed by some physicians in the treatment of insanity, the Dr. expresses his opinion as follows :

"It is believed, furthermore, that the vital interests of a portion of the community may, to some extent, be subserved by an expression of our belief in the deleterious consequences of the ordinary mode of commencing the treatment of insanity by repeated and copious bleeding. The abstraction of blood from the veins and arteries of those who are suffering under mental derangement, is but little practised in lunatic asylums, either in Great Britain or the United States. The lancet has probably confirmed and perpetuated more cases of insanity than it has cured."

"There are undoubtedly cases which require the use of the lancet, but they are rare. The indiscriminate employment of this method of depletion is highly injurious and reprehensible."

During the past winter Dr. Earle has adopted a mode of in-

struction heretofore but little practised in the treatment of the insane. He says,

"A few weeks since I commenced, by way of experiment, a series of lectures on miscellaneous subjects, for the benefit of the patients. My anticipations have been more than realized, in the interest which has thus far been manifested in them, and it is consequently determined to continue them, giving one every week throughout the winter." "The lectures are frequented by from sixty to seventy of the patients, and their conduct is marked by order, decorum and attention. Even the most abstract of all the subjects hitherto discussed, the 'Principles and Analysis of Physical, Intellectual and Moral Beauty,' was far more generally appreciated than might be supposed; and we do not recollect ever to have attended a lecture at which there was a greater degree of quiet and becoming deportment among the audience."

The author's remarks on the subject of "restraints" are judicious and liberal, and his practice corresponding with them, is in accordance with the spirit which would remove everything of the kind from the limbs of the insane, if such a thing could be, without detriment to their comfort.

3. By the report of the Eastern Asylum we learn that the number of patients in that Institution on the 1st of January, 1844, was :—

	Men.	Women.	Total.
	62	47	109
Received since,	17	24	41
Under care during the year,	79	71	150
Discharged during the year,	7	5	12
Died during the year,	3	3	6
Remaining December 31,	69	63	132

A large proportion of the cases received in this Asylum have been chronic, and on that account, notwithstanding it is furnished with all the means and appliances of a successful curative establishment, the number of recoveries reported has been small.

Dr. Galt attempts to show the influence of the seasons in causing insanity, and concludes, from the statistics of the Eastern Asylum, that Summer is more productive of the disease than any

of the other seasons. He also brings forward statistics of other Institutions, both in this country and Europe, in which the number of admissions during the six warm months, is much greater than in the remaining cold months of the year. It is evident, however, that inferences drawn from such data cannot be conclusive, inasmuch as they refer only to the time of admission, and not to that of the attack.

4. The present report is the first that has been made by Dr. Allen, since his appointment to the Superintendence of the Kentucky Asylum, and we welcome it as an indication of the success which may reasonably be expected to reward his labours in their administration. This Institution, if we may judge from its previous reports and some statistics in the one before us, has hitherto been in bad hands; its friends may therefore congratulate themselves on having secured the services of a gentleman who seems in every way qualified to discharge the responsible duties of the station.

On the 1st March, 1844, there were in the Asylum,—

	Men.	Women.	Total.
	92	71	163
Admitted since,	46	27	73
Under care during the year,	138	98	236
Discharged " "	36	17	53
Remaining,	102	81	183

Of the 53 cases discharged 34 were restored and 8 died.

The following extract will give an idea of the state of things that has hitherto existed, in comparison with the present.

"Table No. 3.—Shows the number of deaths each month and year, since 1824 to December 31, 1844, inclusive, which is 416, or about 1 in 2¼—an unusually large proportion. This great mortality seems to have attended this establisnment up to the present year, and during this year not a very small proportion have died. For three years past, 1840, 1841, 1842, and 1843, including January and February, 1844, there have occurred 105 deaths, about 1 in 4. During the present year, (since 1st March last) we have had 8 deaths out of 237, about 1 in 29½."

The greater part of the report is occupied with an account of the present condition of the Asylum, its defects and wants;

earnestly calling the attention of the Legislature to the importance of making it, what every Institution for the insane ought to be, an establishment for curing the disease, and not a receptacle merely for incurable cases. J. H. W.

Twenty-Eighth Annual Report on the state of the Asylum for the Relief of Persons deprived of their Reason. Published by direction of the Contributors. Philadelphia, Third month, 1845.

This excellent Institution is located in a fine, healthy district of country, about six miles north of Philadelphia, and in the vicinity of the borough of Frankford. It is owned and governed by an Association, the members of which are confined to those of the Society of Friends. It was originally designed exclusively for the relief of members of that religious denomination, but the liberality of the proprietors has extended the privilege to respectable individuals out of the pale of the Society, when there is room in the buildings for their accommodation, without interfering with the admission of those contemplated by its establishment.

The immediate government of the Institution is confided to a Board of Managers selected from among the Contributors. Dr. Charles Evans is the Attending Physician, and Dr. Joshua H. Worthington, Resident Physician.

The number of those in the Asylum at the time of the last report, was - - -	52	100
Received since, - - - - - -	48	
Discharged or died, - - - - - -	42	100
Remaining, - - - - - -	58	

Of the forty-two patients discharged, there were

Restored, - - -	25	
Convalescent, - -	2	
Much improved, - -	2	
Improved, - - -	7	
Stationary, - - -	5	
Died, - - -	1	42

Of the fifty-eight remaining, there are

Restored, - - -	3
Much improved, - -	5
Improved, - - -	8
Unimproved, - - -	42—58

Of the patients discharged "restored," eleven were in the Asylum not exceeding three months; seven from three to six months; and seven from six months to a year.

The average duration of residence in the Institution, for the twenty-five cases restored, was four months and nineteen days.

The Principles and Practice of Dental Surgery. By Chapin A. Harris, M. D., D. D. S.; Professor of Practical Dentistry and Dental Pathology in the Baltimore College of Dental Surgery; Fellow of the American Society of Dental Surgeons; Member of the Medico-Chirurgical Faculty of Maryland, etc. etc. Second Edition. Revised, modified, and greatly enlarged. Illustrated by sixty-nine wood engravings. 8vo. pp. 600. Philadelphia. Lindsay & Blakiston. 1845.

The first edition of this excellent work was so much lauded at the time of its publication, by experienced dentists, and has met with such ready sale, that it seems scarcely necessary to speak now of its general merits. As may well be supposed, a second edition by so competent an author, possesses many advantages over the first. Several very important subjects, not embraced in the former edition, are treated of in this; such as the Anatomy and Physiology of the Mouth; the Physical Characteristics of the Teeth and Gums; Salivary Calculus; Diseases of the Maxillary Sinus, &c. These are useful and important additions. No work on Dentistry can, indeed, be regarded as complete, which does not contain an account of the anatomy and physiology of the mouth, including the teeth and gums.

"The object of the author in the preparation of this edition has been," as we are informed, "to provide a thorough elementary treatise on Dental Medicine and Surgery, which might be a text book for the student, and a guide for the more inexperienced prac-

titioner," and we think it will be conceded by all who examine the work, that he has succeeded in attaining the end at which he has aimed. We can hardly doubt that every dentist in the country will supply himself with a copy of Dr. Harris' work; and we hope that country practitioners of medicine, too, will avail themselves of the information and excellent advice it contains. They are often called on to treat diseases of the teeth and their consequences, and have need, therefore, of more instruction on these points than is generally conveyed in medical lectures, and the books ordinarily in the hands of physicians.

The style in which the book is got up is exceedingly creditable to the publishers—substantial binding, good paper, clear type, and excellent wood engravings, all add to its value.

THE MEDICAL EXAMINER.

PHILADELPHIA, MAY, 1845.

HEALTH OF PHILADELPHIA.

We have never known the measles so prevalent in Philadelphia as at the present time. From the reports of the Board of Health, and all that we can learn of the experience of our friends, as well as from our own observation, the epidemic appears to be characterized by great mildness—we have certainly never seen it more so. We have also some cases of erysipelas. This disease, although not at all general, like rubeola, in the instances that we have seen, has been marked by unusual violence. The constitutional affection, of which the eruption must be regarded as merely a manifestation, is of a decidedly adynamic character. Generally there has been no affection of the throat; but in two instances that have come under our notice, the disease commenced with a swelling of the tonsils and soft palate, and also of the tongue, to which the efflorescence on the face and head quickly succeeded. Of latter years, a connexion between erysipelas and epidemic puerperal peritonitis has been supposed to exist,

by many excellent observers, but the question is by no means settled. We have recently had a good many cases of the latter disease in various parts of the city; and although they have seemed to be sporadic, they have been exceedingly severe, and far more fatal than is usual for accidental cases, or such as occur without the presence of an epidemic cause. One of the most rapidly fatal of the cases that have come to our knowledge, occurred in the practice of a gentleman who, at the time when he delivered the patient, was in almost contant attendance upon a patient with malignant erysipelas. We mention the circumstance to direct to it the attention of our brethren who are engaged in the practice of midwifery, that they may notice the facts that bear upon this deeply interesting point.

An able article on the nature, origin, and treatment of puerperal fever, by Dr. Blackmore, of Edinburgh, will be found among the articles of our *Record* in the present number. Whatever may be thought of the conclusions of Dr. B. touching the malignant and specific character of *sporadic* cases of puerperal fever, our experience teaches us the necessity of perfect non-intercourse between the sick and those who are liable to the disease, and particularly in Hospitals and Lying-in Institutions.

OBITUARY.

We regret to have to record the death of Professor Thomas Sewall, M. D., of Washington, D. C., which occurred on Monday, the 10th instant, in the fifty-ninth year of his age. Dr. Sewall was a native of Augusta, in the state of Maine. He graduated at the Medical School of Boston, and about the year 1820 removed to the City of Washington, where his talents and acquirements, with an upright deportment and great urbanity of manners, soon procured for him the respect and patronage of a large portion of the inhabitants. He was appointed Professor of Anatomy in the Medical School of that place on its first organization, and continued to discharge the duties of the Chair, with distinguished ability, until the time of his death. By the public prints we observe, that the members of the profession of the city in which he resided, and the students of the College to which he was attached, adopted suitable measures to express their grief for his loss. Beside these, his remains were followed to the grave by a large concourse of people, including a number of eminent statesmen, and the distinguished citizens of the place.

RECORD OF MEDICAL SCIENCE.

OBSERVATIONS ON THE NATURE, ORIGIN, AND TREATMENT OF PUERPERAL FEVER.

Founded (a) *on Cases which occurred Epidemically at Plymouth, in the Autumn of* 1831 *;* (b) *and on a Comparative View of Concurrent Cases of abdominal inflammation in the Puerperal State, the Pregnant State, and after a Miscarriage;* (c) *and of Cases in Women not Pregnant;* (d) *of Abdominal Inflammation occurring in various Diseases then prevalent;* e.g., *Synochus, Cholera, Erysipelas, and a peculiar external Gangrenous Affection; and* (e) *on a View of Peritoneal Inflammation in the Male Sex.*

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The facts and reasonings in this paper were communicated, substantially, to the Bath Medical Society, in the session of 1833. The cases which have come under my notice may be interesting to those practitioners whose attention has been excited by the valuable papers on this most important subject, which have appeared in the *Provincial Medical and Surgical Journal.*

The most impressive view of this disease will be obtained from a perusal of the cases themselves*, and by observing the contrast or resemblance to the puerperal fever, exhibited in the character of the associate diseases. The leading general symptoms of the specific affection were, shivering, attended by pain in the abdomen, a rapid pulse, and quick breathing; in some cases, vomiting; in others, a purging, quickly succeeded by serous effusion into the peritoneum, when this membrane had been the seat of extensive inflammation; and a rapid sinking of the vital powers.

The phenomena of the cases suggest the following deductions:—

(1.) That puerperal fever is a specific affection, which, when occurring either epidemically or sporadically, presents itself under *two forms*, which constitute merely *varieties* of the disease, and not specifically different maladies. These forms may be designated the *synochal*, sthenic, or more benign; and the *typhoid*, asthenic, putrid, or more malignant. The general form of the puerperal fever at any period, usually resembles that of other febrile diseases, particularly synochus, and various exanthemata, and also of some purely local inflammations, which prevail at the time in the same place; and the analogies then observable among all these affections, strongly illustrate the character of each other.

The disease in both varieties is of a *malignant* nature, in comparison of common fevers and inflammation; it assumes a more asthenic tic character in hospitals, low marshy situations, and in a variable autumnal season.

(2.) Disorder in the system, signified by an indescribable uneasiness, or change in the nervous feelings, a quickened pulse, and dis-

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ordered breathing, generally precedes the *manifestation* of the local affection, although to an inattentive observer these two elements may seem to begin and go on with an equal step.

(3.) An extensive and severe abdominal affection is an essential part, and a great source of the danger, of puerperal fever. This local affection has *various seats;* in some cases, the *peritoneum* of the intestines is chiefly affected; in others, that of the *stomach*, or of the *uterus* and its appendages. In all the cases which have come under my observation, the parietal or the visceral serous membrane has been more or less the seat of disease. Disease in the *mucous* membrane of the uterus, intestines, and stomach, forms occasional complications with the peritoneal affection, and severely aggravates the danger of the case; and sometimes this membrane is the original seat of the abdominal affection. In a majority of the cases, the *rapid extension* of the inflammation, whatever be its seat, is a distinguishing character of the local disease.

In some cases, particularly of the typhoid form, besides the former organic lesions, we see a *softened* state of the *liver* and *spleen*, gangrene or fœtid suppuration in the *uterus* and *ovaries*, and a softened or gangrenous state of the *lungs*.

(4.) The specific character of the disease is not derived from an affection of any one organ or texture, nor from any particular morbid state of the abdominal viscera. The character of the constitutional affection, in any particular case, the sympathetic or secondary fever, will, indeed, vary with the nature of the local disease as to its erythematic or suppurative or gangrenous conditions; but in genuine puerperal fever, the primary fever and the local element are equally the pure results of its specific exciting cause. The malignity of the disease, moreover, is not the effect of uterine *phlebitis* and absorption of pus from the veins; nor even of *gangrene* of the viscera. The cases have shown an equally rapid course, in which vascularity and effusion into the peritoneum were the only morbid appearances.

The *degree* of the local affection is variable; in some few cases forming the minor element of the disease; practically, however, it is always an important part of it, and a great source of danger; in its symptoms, and in its progress, it is remarkably different from those of abdominal inflammation from other exciting causes.

(5.) The malignity of the disease is not more mysterious than that which occasionally marks erysipelas, the other exanthemata, and petechial typhus; and, from the cases which I have detailed, it appears to be analogous to these diseases when extensively prevalent and fatal. This malignity is characterised by the severity of the early rigor and shiverings, by the early acceleration of the pulse, and of the breathing, by the intensity of the pain, or by a *want of correspondence* in the degree of the pain with the other alarming symptoms, and by the rapid sinking of the vital powers. The symptoms of a severe affection of the nervous system, so often seen in bad cases of synochus or typhus, were absent in the fatal cases of the puerperal disease that came under my notice.

The malignity is also manifested by the *rapid extension* of erythematic inflammation over the serous and mucous membranes of the abdominal and pelvic viscera, and its attendant serous effusion; and by a suppurative or gangrenous affection of the lungs, the liver, the spleen, and of the subcutaneous and inter-muscular cellular tissue of the trunk and limbs.

The cases which I shall submit to the attention of the Association, seem to demonstrate, that *puerperal fever is not a pure local inflammation.* It is *something more* than *erythematic peritonitis* or *metritis*, in puerperal women; which, in a scrofulous constitution, does exhibit *analogous* phenomena; as do also abdominal inflammations in other subjects when puerperal fever is prevalent.

It is not a pure fever, of which abdominal inflammation is an incidental accompaniment, and which is strikingly exemplified in case 14.

It presents the most remarkable analogies to the *pyrectic exanthemata*, particularly to idiopathic *erysipelas;* (see cases 15, 16, 17, 20;) and from its co-existence with this disease, and their probable community of origin, I should regard it as essentially a puerperal *erysipelatous fever.* Erysipelas with puerperal fever, is known to prevail epidemically, and to exhibit analogous varieties of the more fatal character. The contrast to this puerperal disease, presented by the cases in section 3, and the *resemblance* of the cases in section 4, (see cases 15, 16, 17, 20), strongly confirm this view of the pathology of the fever, and offer a solution of the difficulty in which the pathology of the subject has been involved; and if erysipelas be regarded as essentially a *cutaneous* eruption, attendant on a primary fever, from a specific poison, (although I could adduce strong direct evidence of *internal* erysipelas, and we have the evidence of analogy in scarlatina maligna, affecting the throat and not the skin,) then I would propose to add puerperal fever to the usual enumeration of the species of the exanthemata, defining it "*A contagious disease*, affecting the individual *commonly but once, beginning with a fever, and, after a variable interval, showing itself in an erythematic inflammation of the serous and mucuous membranes, and parenchyma, of the abdominal and pelvic viscera, in the puerperal state.*" If this puerperal fever is a specific disease, differing from a pure inflammation, and always more or less malignant, it becomes a matter of infinite moment *to recognise the first case of the malady*, which may be the forerunner of a fatal epidemic. Can it be distinguished from another case of abdominal inflammation in the puerperal state? The progress of the case, and the after-death appearances, would certainly serve to distinguish it; but the diagnosis then has come too late for the safety of the patient, and probably also for confining its diffusion. A wholesome suspicion of the peculiar nature of the case may be suggested *by the nature of the diseases then prevailing*, particularly the exanthemata and fevers, if it be not excited by the special symptoms of the case.

It is too true that this important recognition has scarcely ever been arrived at; the early cases of a puerperal fever epidemic have usually come on the practitioner as a thunder-bolt; the state of the patient

from the period of delivery to the outburst of deadly symptoms, has appeared to betoken nothing alarming nor unusual; the real character of the disease is only revealed to him by the dire experience of fatal cases. ***If he had been anticipating*** such a disease, he might have seen some symptoms that should have awakened his vigilance. The facts of the following cases enforce this precept:—Whenever synochus is often attended with peritoneal inflammation; whenever erysipelas has been prevailing; whenever other exanthemata have worn a malignant character; whenever the state of the weather has been unusually variable and unnaturally mild and rainy, be on the watch for puerperal fever!

The ***causes of the mortality*** of this dire disease may be referred to these heads:—(a) The specific nature of the disease, *e. g.*, its extensiveness, its intrinsically asthenic and putrescent character; the sedative influence on the vital powers of the accumulation of the poison in the system, or of the congested venous blood in the abdominal viscera. (b) Early neglect of remedies; many cases are incurable, unless properly treated within twelve hours after the attack. (c) Improper treatment, *e. g.*, large bleedings, abuse of turpentine and opium. This treatment may, indeed, have been pursued without fault in the practitioner, who can sometimes only learn from painful experience, the real nature and proper remedies of the malady. An examination of one's own cases and others on record, will, however, show that failure has been owing to the treatment ***not being modified according to the changeful states of the case***, and the true character of the epidemic. Profuse bleedings, so generally practised in the early cases, and sometimes a more moderate bleeding at a late period of the disease, has evidently, in later epidemics, served only to augment the serous effusion, and hasten a fatal collapse. I cannot, however, admit the paralysing belief, which has been derived from misfortune, that in a large proportion of cases all treatment is useless from the time when the medical man is first called in. I am convinced that some patients might have been saved *deo favente*, if the practitioner could have seen the case ***unintermittingly***, or had had a judicious assistant on the watch during his absence. More will be said on these points below, under the head of treatment. (d) The ***antecedent state of the patient*** has sometimes made the attack fatal—*e. g.*, a full-blooded irritable state of the constitution, or debility with poverty of the blood, or an indefinable unhealthiness connected with a sickly season, or a crowding in lying-in hospitals, or a stomach complaint, or disease of the ovaries. See case 2.

The ***origin*** of this malady is a subject not less important than its pathology. ***That it is contagious*** in each of its varieties, sthenic or putrid, is beyond dispute. ***The source of the infection***, in the first case of the epidemic, ***and the principal means of its subsequent diffusion***, are matters of the utmost consequence to be ascertained. The facts bearing on this question, in the epidemic to which this paper refers, are these:—The case first narrated, was the second fatal case among *eight* or more examples of puerperal inflammation, which had

occurred to one accoucheur in a fortnight; and in the subsequent fortnight, he had *seven* other cases, of which *three* were fatal; and in another week three or more, and two deaths; and after this he had other cases, which were saved. I ascertained that he had at least *eighteen* cases in rapid succession, and eight of them fatal, the majority of which occurred when no similar cases were heard of in the practice of other accoucheurs. Before, however, the disease had disappeared from the list of this gentleman, who is now deceased, a fatal case occurred to a practitioner, and then others in quick succession; and concurrently with these, similar cases happened to a third accoucheur, among the higher as well as the lower classes, and in all parts of the town! No communication was ascertained betwixt these three sections of cases; none of these medical men had seen the cases of the others; *and the accoucheur was the only known means of communication among his own cases.*

Whence sprung the first of these cases? The accoucheur had a large practice among the middle and lower ranks of the population, and had been in constant communication with cases of erysipelas and fever; and as these diseases were prevalent in those parts of the town in which the puerperal fever cases were met with, it is at least highly probable that some of the puerperal patients and their nurses had been in communication with the subjects of those diseases. So far as the evidence goes, it tends to establish the conclusion that the poison of erysipelas was the origin of the puerperal fever. Not that I believe there was, or ever is, necessarily, a direct innoculation of the poison, by the hand of the medical man. I do not believe that the matter of a healthy abscess, with surrounding erythema, a common instance of sporadic or traumatic erysipelas, could, by *itself*, induce puerperal fever. If it could, every accoucheur ought to renounce all surgical practice, and to remain a pure man mid-wife! Admitting that a lying-in woman could suffer at all in this way, she would present a sporadic case of abdominal disease, and no infectious fever would follow. If the poison of erysipelas may have been the origin of the fever, is the accoucheur to oppress himself with remorse, as *if he must have been its vehicle?* This, like the other exanthematous contagions, may assume a gaseous state, *and become a morbific atmospheric influence, and extend itself beyond the range of personal communication;* and I believe that in some instances at least, it had reached the puerperal fever patient, *before she was in child-bed*, or before the practitioner had come near her. Again, before a case of erysipelas has been apparently the origin of this fever, *it has itself been epidemic*, and this fact involves the existence of an atmospheric influence, which may operate apart from personal communication, either immediate or mediate, with the sick. The medical man, then, is not necessarily the *originator* of puerperal fever.

Is he the principal means of its diffusion? The cases as we have seen, are for a time confined to one man's patients—the cases occur in rapid and even in *direct* succession—he retires from practice, and on his return, he meets with no other cases. These strong facts strike

his conscience, and he feels that he never can forgive himself, for not having retired after the first unequivocal and fatal case! If his conclusions were well founded, the facts should show that he *inevitably* and universally conveys the contagion; that it cannot be diffused in the atmosphere, and that its laws are different from those of all other febrile contagions. The ascertained facts do not show this; the practitioner may be, and to some extent is, innocent of the direct succession of his cases, *yet it is his duty to act as if he would, without precautions, convey the disease.* Let him change every garment that he has worn in the sick room, wash himself from head to foot, (not omitting his *hair* and his *teeth*,) and remain for some hours in the open air, before going to another lying-in-patient. If, after this, a second case occurs, he must retire, from a regard to his own happiness and respect to public opinion; at least, he must so far limit his midwifery practice, as to enable him to carry out the precautions named, to the fullest extent. Let not this admonition be thought dogmatic or magisterial; the exhortation is not needless. I have known an accoucheur to go from a *post mortem* inspection of a case, directly to another parturition!

The facts, then, appear to be, that puerperal fever is contagious, and that the accoucheur, the nurse and infected apartment, and fomites, have spread the disease; that *it is spread also by an atmospheric influence, which no precaution can always exclude from the lying-in room;* and that the poison of erysipelas, itself also communicable in both those modes, is the same as that of puerperal fever, or convertible into it.

It is, further highly probable that certain natural, but extraordinary, atmospheric conditions must occur with the animal poison, in order that these diseases may become epidemic; these conditions being, so far as they are known, a low barometric, and a high thermometric, and hygrometric quality; warm, damp, variable weather, pregnant, also, with thunder. The facts which favour these views are: that when puerperal fever is prevailing, pregnant, puerperal and mis-carrying women are especially liable to abdominal inflammation, and that of a peculiarly paroxysmal and protracted character. (See cases 4 to 10.) That cases of abdominal inflammation then coexisting, also exhibit a peculiar character. That synochus and typhus is then often attended with abdominal inflammation, which, in its erysipelatous character, and the want of proportions in the symptoms and the morbid appearances, resembles the last affection in puerperal fever; and that various exanthemata, then prevalent, also exhibit more or less of a malignant aspect.

I beg leave to apologise for the aphoristic form of the foregoing remarks. I wish not to *dogmatise* on so difficult a subject, but merely to place the more important points prominently before the attention of practitioners. In a subsequent paper, I shall present notes and illustrations, derived from various authorities, on this most interesting disease.

The Treatment.—There are three sources of light on the treatment

of a disease ; (a) *empiricism*, or a fair deduction from the unsuccessful and the successful treatment of former cases; (b) the *pathology* of the disease : and (c) *analogy*, the results of the treatment of other co-existing maladies of a similar type.

Before using these sources for estimating the treatment of puerperal fever, it may be proper to offer a remark on the doctrine, that the disease, in its malignant form, is absolutely incurable, that the most prompt and vigorous treatment is unavailing, and that our efforts can only be usefully directed to *prevent* the malady. It is true that it has been frightfully fatal; and that the recorded results of medical practice are to some extent nugatory, as many cases published under the name of puerperal fever were not instances of it, but such as my 4th, 6th, 7th, and 9th cases.

Yet a retrospect of the fatal cases, of each form, (and I mean not to exempt my own,) does show that the mortality has not been absolutely referrible to the malignant nature of the disease. To adduce illustrative evidence of this would be painful or invidious; it may, however, be stated that failure has at times been owing to an employment of the remedies proper only for the state of collapse in the congestive stage, and the converse ; to an *unscientific combination* of various sorts of medicines, thus defeating ourselves *propria manu ;* to transferring the fruits of experience gained in one epidemic *indiscriminately* to another of a different character, and to *misapplying* to cases in private practice the experience gained in an hospital. Common sagacity teaches us that every epidemic, and *each case*, should be treated according to its particular nature. With respect to *each case*, the *textures* and the organs affected should *modify* the treatment. In one of my cases, the death might have been owing to a disregard of the *gastric mucous membranes ;* in another case, in which *previous* disease had laid the foundation of grangrenous disorganization of the ovaries, the treatment was such as could only succeed in a pure phlegmonous inflammation.

As to the particular remedies :—(a) *Blood-letting*. In the synochal form of the fever, and in the early state, when the previous health has been good, and the labour unattended with flooding, and when the type of other prevailing diseases is that of inflammatory fever, or phlegmonous inflammation, no reasonable doubt can exist on the propriety of a *general* bleeding.

In many coincident cases of peritoneal inflammation, in puerperal and pregnant women, bleeding was unquestionably the remedy that saved the patients. Case 6 shows the sad consequence of its omission, and Case 7, the happy effect of its timely use. The symptoms, and the morbid appearances, in the puerperal fever cases, showed intense erythematic inflammation. It would be contrary to all just theory and experience to suppose that such a disease could subside without the loss of blood, or that general bleeding, wisely practised as to its seasonableness and quantity, could do harm. Yet experience and pathology, and analogy, combine to show that bleeding is not to be performed, even in the less malignant cases of the fever, as it is success-

fully done in sthenic phlegmonous inflammation. In the cases I have narrated, large bleedings did not save the patients; probably in two of these it favoured the peritoneal effusion. The analogical evidence from the erysipelatous and gangrenous affection (cases 16, 17, 18, and 20,) is conclusive on this point. In the cases where bleeding is proper, it certainly should not be carried to syncope, nor performed in the erect posture. A moderate general bleeding, followed instantly by leeches to the seat of pain, or to the vulva and groins, or a cupping glass on the top of each thigh, is preferable to a large abstraction of blood from the arms. And the combination of small, general and local bleedings, is better than thirty-six leeches on the belly, to impress the system. By this means, *done early*, the accoucheur, who lost so many patients in 1831, saved the remainder; although the malignity of the epidemic had certainly not then exhausted itself.

The decision on the treatment will often be more difficult than in the case I have mentioned: *e. g.* ought general bleeding to be performed when the case is of the asthenic typhoid form, as in my second case; the previous health infirm, symptoms of disease in the uterine appendages pre-existing, which make it likely that disorganization will quickly follow; when, also, the pulse is very rapid, and when the state of the breathing shows that the lungs, or the nervous system, is suffering? The results of its adoption in the cases I have seen, and in those of the analogous diseases, accord with the after-death phenomena, in throwing serious doubts on the propriety of the measure, at least to the extent, and at the time at which it was employed, *although the blood was inflamed.* Experience, however, does not conclusively show the impropriety of a general bleeding, for the bleeding has usually been profuse. An abstraction of four ounces of blood I have known to be useful, when the loss of twenty ounces would have been injurious. In some cases, however, of this form, local bleeding and *extensive dry cupping* appear most proper; and leeches would often be more successful than they have been, if the blood vessels *directly communicating* with the seat of the local disease were depleted. Leeches *on the abdomen*, where only they are usually placed, could not act so powerfully in *metritis mucosa* as in inflammation of the parietal peritoneum; yet how seldom do we employ our knowledge of the seat of a disease and of the anatomy of the blood vessels in directing our local bleeding.

(b.) *Purgatives.*—The sixth case shows the sad consequence of costiveness after parturition; and, on the other hand, a violent purgative seemed in one instance to induce severe intestinal peritonitis; and there is reason from analogy to suspect that where an animal poison was in the system, purgatives have favored the rise of an erysipelatous disease of the intestines. The conditions of the special case will regulate their use; when the stomach and intestines were inflamed, a violent purge has done harm; and half an ounce of turpentine in an irritable body has excited gastritis. When the inflammation was confined to the uterus, free purging has had the most delightful effects; the aperient salines with colchicum, and mercury

with chalk, antimonial powder and ipecacuanha, I have found, in these cases, act freely and safely on the bowels. In the *typhoid* variety of the disease, the best purgative is castor oil with turpentine, and *clysters* of the same medicine, and also of *calomel with soda*, in doses of half a drachm, of each.

(c.) *Sedative Diuretics.*—Digitalis, with the alkaline salines, given largely in many cases, did no good; although analogy appeared to recommend them. Colchicum I have found superior to the former, when the skin is hot and the pulse sharp. *Turpentine* appears to me to require more caution and discrimination in its use than it has at all times received; from its benefit in some *hospital* cases, it has been largely adopted in private practice; and in high-blooded irritable patients, and in the synochal form of the disease, I have known it do mischief. In one case it excited severe spasm of the diaphragm and abdominal muscles. No one thinks of using it in phlegmonous erysipelas; why should it be used indiscriminately in puerperal fever? In the more sthenic form of the disease, after the acute inflammation has relieved itself by serous effusion, this medicine may safely, perhaps, be used; and in the *typhoid* cases, no medicine has been more successful. There is nothing mysterious or *specific* in its operation in puerperal fever; it is only beneficial in this disease, in a state analogous to that of other diseases in which it has been efficacious.

(d.) *Mercury.*—Its high value in all the forms of the disease, is established by abundant evidence. The best mode of using it remains to be shown by *exact* experiments. The utility of *inunction* admits of little doubt; is not inserting it into the vagina worth a trial? The black-wash of calomel and *soda*, in cases with diarrhœa, is, I believe valuable. It is a favorite practice to give ten grains of calomel at first, and to repeat doses of three grains; I believe the smaller doses, at very short intervals, are better. Theory would reject it in the putrid form of the disease; but experience confirms its value.

(e.) *Narcotics.*—I would submit a doubt of their value, even when combined with mercury or antimony. Opium has done harm, and is, I believe, on a sound theory, to be condemned, except in the case of a very rapid pulse, with a moist tongue, a perspiring skin, and watery stools. In common phlegmasial inflammation, in child-bed, I have used it, and the salts of morphia, with the best effect, after bleeding; but in the puerperal fever it easily *narcotises* the patient, and adds to the prostration of the nervous power.

(f.) *Stimulants.*—In the stage of collapse in all cases and earlier in the typhoid form, they must be given to save the reputation of the practitioner, if the patient cannot be saved; they have been used *injuriously early* in the more sthenic variety of the disease. I have reason to believe that *chlorate of potass and ammonia* would, in some cases, be the best stimulant.

(g.) *Tonics* are not recommended by direct experience, but they are by the analogy of *putrid erysipelas.* Both analogy and empiricism *condemn the early use* of bark or quinine. The *diacetate of lead* is a sedative tonic which my experience in the case of *after flooding*,

and the analogy of other putrid diseases, combine to recommend to further trial.

(h.) Of *local means*, emollient poultices, or hot moist bran, or boiled chamomile flowers, with vinegar of colchicum and tincture of henbane in them, I have found serviceable. In some cases more restringent applications, as dry heat, or hot flannels with alcohol sprinkled on them, or *hot salt* and mustard flour, may be preferred.

In conclusion, I would suggest that *new means* are not required; we are not to search for *specifics*, but to aim at a more distinguishing and judicious use of known remedies.—*Prov. Med. Journal.*

MEDICAL SOCIETY OF LONDON, MARCH 10, 1845.

Paralysis of the Intestines.—Obstinate constipation of the Bowels. Dr. Waller related the case of a gentleman exceedingly corpulent, and forty-six years of age, the subject, for a long period, of very large irreducible hernia—possibly, indeed, congenital. He had been the subject of constipation on several occasions, attended with great pain in the hernia, which symptoms, however, usually gave way under the employment of rest and mild aperients. He was in the habit of taking "antibilious pills," and on the morning of the 27th of November last, he took two of these, was freely purged on the 28th, and on the 29th pursued his usual avocation as a shopkeeper; but in the afternoon of that day was seized with a violent, apparently spasmodic, pain in the stomach and abdomen. There were intermissions of pain, but great inconvenience from tympanitic distention of the stomach. He was free from fever. Calomel and opium, followed by a saline purgative, were administered, but without relief. An enema, and subsequently castor oil, were given, with the effect of bringing away a few scybalæ, but otherwise without benefit. He was afflicted with frequent vomiting, the matters ejected being the fluids swallowed, and thick ropy mucus. The hernia was examined, and was without pain, and less, instead of larger, as in previous attacks. Various purgatives were given without benefit, but a terebinthinate injection was returned with much force, and accompanied with flatus, but no feculent discharge followed. On the next day, the 30th, he was in the same condition; there was, however, some uneasiness of the abdomen, not amounting to pain. He was bled to eight ounces, as a matter of precaution, and afterwards placed in a warm bath. He remained the same on the 1st of December, and Mr. Solly was requested to see him. This gentleman agreed in opinion with Dr. Waller, and considered that, although the *general* symptoms were those of strangulation, yet the local condition of the hernia did not warrant an operation. A few leeches were applied over the hernia, and calomel and opium given internally, and also an injection of turpentine, with the addition of tincture of assafœtida. No relief followed, and the next day twenty leeches were applied to the abdomen. The matter vomited in the fore part of this day on one occasion appeared stercoraceous. In the evening vomiting ceased, and

a drastic purgative of scammony, calomel, and gamboge, was administered. No relief followed, and the feeling of distention became most distressing; the operation of opening the hernial sac was determined upon, and Mr. Solly performed the operation.

On opening the sac, a large piece of omentum, loaded with fat, protruded itself; behind this there was a large portion of colon, of healthy appearance, slightly darker than another portion subsequently discovered, which was situated behind it, but neither presenting any appearance of strangulation. The omentum was adherent in many parts, and greatly thickened, so that it was found necessary to remove a portion, which weighed twelve ounces and a half. After much difficulty the gut was returned, Mr. Solly having previously divided a few fibres of the abdominal ring. No portion of the exposed intestine appeared to have been injured, and, in fact, no stricture was discovered; the wound was then dressed in the usual manner.

For a short time afterwards the patient appeared a little easier, but, on watching him through the day, it was evident he was no better. As there were no symptoms of inflammation, however, it was still thought there was a chance of his recovering. Whilst consulting on the propriety of administering a drastic purgative, they were summoned to his bedside, and ascertained that a very slight evacuation had taken place. This, however produced no relief; he gradually got worse, and symptoms of rapid sinking manifested themselves; vomiting of a large quantity of dark-coloured fluid became incessant; distention increased, and at half past seven A. M., 4th December, he died, a small fluid motion having passed an hour and a half previously.

On examination of the body after death, no traces of disease manifested themselves. The hernial sac was perfectly empty, and there was no appearance of peritoneal inflammation. The whole of the small intestines, cœcum, and the greater portion of the transverse arch of the colon, were enormously distended with flatus, a portion of the latter (transverse arch) was not so distended, and this was the part first discovered on opening the sac. It was scarcely smaller than natural, but was less than the distended portion above, but neither on its peritoneal nor mucous surface did it present the slightest appearance of having been strictured; it was adherent to the peritoneum, close to the mouth of the sac. Perhaps the diminution of its calibre was occasioned by the hardened omentum lying upon it in the sac. The other portion of the colon which had been in the sac was the sigmoid flexure, and this is rather larger than the last-named portion. There was a very large accumulation of feculent matter both in the large and small intestines, but it was perfectly liquid, and there was no scybalæ.—*London Lancet.*

Caoutchouc as a Remedy for Toothache.—Caoutchouc, becoming very smooth and viscous by the action of fire, has been proposed by Dr. Rolffs, as an excellent remedy for filling hollow teeth, and alle-

viating the toothache proceeding from that defect. A piece of caoutchouc is to be put on a wire, then melted at the flame of a candle and pressed, while warm, into the hollow tooth, and the pain will disappear instantly. The cavity of the tooth should first be cleaned out with a piece of cotton. In consequence of the viscosity and adhesiveness of the caoutchouc, the air is completely prevented from coming into contact with the denuded nerve, and thus, the cause of the toothache is destroyed.—*Braithwaite's Retrospect.*

SURGICAL SOCIETY OF IRELAND, FEB. 15, 1845.

Unusual form of Intus-Susceptio of the Colon.—Dr. Harrison said he would briefly detail to the society the particulars of a very unusual case: he had himself never met a similar one, nor had any of the authorities alluded to an exactly parallel occurrence. Some time since, Dr. Gason of Enniskerry, a gentleman extremely well informed in his profession, had sent the patient to him, who was then much emaciated, and with a countenance expressive of great suffering and distress, such as is observed in internal malignant disease. Vomiting was so incessant that the patient could hardly speak. On examination, a tumour, about the size of an orange, was found near the umbilicus, between it and the ribs of the left side; it could be moved up and down, and was free from pain at times, except on pressure. He was much in doubt about the nature of this tumour, but formed a conjecture that it was a malignant growth from the omentum between the colon and stomach. He saw that it could not be an aneurism, and its situation was too low to induce him to suppose the disease was connected with either the liver, spleen or stomach. He would not enter into a detail of the various remedies employed, all of which completely failed to give the slightest relief. The poor man was at times very free from suffering, but at other times he would scream out and say—"Kill me, or cut me open!" The only medicine that at all benefitted him was opium, which he continued to take till his death. On examination of the abdomen after death, very little appearance of disease presented itself at first. There was no general inflammation of the peritoneum or of the omentum; but on raising up the latter structure, and examining the colon, an intus-susception of this intestine was seen to have taken place, the descending portion of it being carried up to the transverse arch, probably for an extent of three or four inches. The transverse arch being laid open, Doctor Harrison exhibited the lower portion of intestine lying in the upper, with its orifice resembling an os uteri projecting into a dilated vagina; this contracted appearance of the orifice might, he thought, in some degree, account for the violence of the pain that had been suffered. The intus-suscepted portion of the intestine was found in an ulcerated condition, accounting for the unhealthy discharge that had existed during life. Here was a very remarkable form of intus-susception totally unlike those usually seen. When Hunter, in speaking of the affection, observes that such an occurrence is possible, he

talks of the two species of the disease—the one progressive, in which the invagination may go on increasing from above downwards—the other, the retrograde form, the lower portion of the tube being received into the upper, as in the case under consideration; however, he gives no example of this occurrence. Sir Everard Home mentions one case of the retrograde species in the small intestines—a point in which the present case possessed additional interest, for the intus-susception was here situated in the colon, while the small intestines or the cœcum are the parts usually involved. Cruveilhier had never met with this form of the disease, and gives no plate representing the affection. Various opinions respecting the nature of the case were entertained, not one who saw it having diagnosed it, except indeed Dr. Law, who, when he first examined the patient, at once observed that he knew of nothing it resembled so strongly as intus-susception. For himself, he must confess he had not for a moment formed such an opinion. No remedy is known for the disease; the boasted one of the ancients—metallic mercury—being found to be as inefficacious as the rest; purgatives given by the mouth can effect nothing; Hunter says they generally do more harm than good; he conceives that violent vomiting might reverse the peristaltic action, but he (Dr. Harrison) believed very little reliance could be placed on any aid of a mechanical nature. With the exhibition of opium and perfect quiet, it might be hoped that an adhesion would take place between the opposed serous surfaces of the intestine, and the internal cylinder, by this means gradually discharged by the anus; for many cases, have been observed in which so many as two or three feet of intestine had come away. The present case, in which no hope of a favorable issue could be at all calculated on, might (had a diagnosis of its true nature been made) have been a good one for the lumbar operation. Had an opening been made in the right lumbar colon, a little above the cœcum, it might reasonably be expected that he would have survived. With regard to the operation of opening the colon in the lumbar region, it appeared to him, judging anatomically, that the right ought to be chosen in preference to the left portion of it, which latter was the one hitherto selected. The right division would be found to be least covered by peritoneum, and to have much less mesocolon, and on making examinations of both portions he had found the right colon generally deficient of peritoneum on its posterior aspect. He thought this case would be interesting to the society for many reasons—the length of time the patient had endured it, upwards of two months, its being an instance of the retrograde speeies, the impossibility of diagnosing it, and its relation to the very interesting subject lately under discussion.

Dr. O'Beirne begged to trouble the society with one or two observations on the subject of intus-susception, respecting which he had an opportunity of arriving at some facts of which he had as yet said nothing. He had observed (and he wished to know if Dr. H. had made a similar remark in his case,) that in cases of intus-susception, whether progressive or retrogressive, that had come under his obser-

vation, the intestine above the intus-suscepted portion was considerably dilated, while the part below it was much contracted, and that the sigmoid flexure of the colon, instead of lying in the iliac region, lay in the pelvis, doubled over the rectum, and to its left side. On passing the tube in these cases, with a view of relieving the bowels, the instrument, instead of passing upwards, followed the course of the sigmoid flexure into the pelvis, and on passing the finger into the rectum, by the side of the tube, a considerable portion of its upper extremity was felt to the left, and with a double of intestine intervening. From this state of the intestine nothing could be gained in cases of intus-susception from the introduction of the tube per anum; but, in recent cases particularly, the most decided advantage must, he thought, result from the introduction of a tube into the stomach, and leaving it there until the flatus distending the upper portion of the intestine, had escaped, and in this way enabling the invaginated portion to liberate itself. He would state, however, that since he had adopted this opinion, he had no opportunity of verifying it by practice. He would conclude by observing that the occurrence of the tube turning back, and passing into the pelvis, is not confined to cases of intus-susception, but also occurs in cases of internal strangulation from newly-formed internal bands. In a case, therefore, where no tumour exists, as in intus-susception, we might fairly diagnose the existence of internal bands, and on referring to some of the early numbers of the *Medical Press*, it would be found that he (Dr. O'B.) confidently foretold their existence in at least two instances.

Dr. H. Kennedy observed that having seen this interesting case, it did not appear to him one which at any time called for an operation; and for the simple reason, that at no period was there any positive obstruction of the bowels. They were, indeed, slow, but acted every second, if not every day. The vomiting, too, which was at first obstinate, abated much during his stay in the hospital, so much so, that four, and even five days passed without any. Besides all this, the case lasted nearly three months—a state of things not to be reconciled with obstruction of the bowels. Before sitting down, he wished to mention one hint in the treatment of such cases, and which he believed he had seen in one of the volumes of Guy's Hospital Reports. It consisted in throwing air into the rectum in such quantities as to cause the intestine to unfold itself, as it were.—*Dublin Med. Press.*

Influenza amongst Horses.—This epidemic has been for the last two weeks very prevalent amongst horses. The leading symptoms of the disorder are swelling and inflammation of the throat, discharge from the mucous membrane of the nose, and lassitude and want of strength. Messrs. Pickford, the celebrated carriers, have upwards of 100 horses now suffering from the complaint, and it is very prevalent and fatal amongst dray horses, one brewer at Westminster having lost three out of eighteen that were attacked. The Paddington Omnibus Conveyance Company have been great sufferers, having lost nearly fifty horses within the last month, and had no less than 105 laid up at one time.—*London Times.*

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, MARCH 11, 1845.

On the Pulsating Tumours of bone; with the account of a case in which a Ligature was placed around the Common Iliac Artery. By EDWARD STANLEY, F. R. S., Surgeon to St. Bartholomew's Hospital.—The author remarks that there are three distinct sources of pulsation in the tumours of bone. 1st, the proximity of the tumour to a large artery—2nd, the developement of blood-vessels and blood-cells, constituting a sort of erectile tissue within the tumour—3rd, the enlargement of the arteries of the bone in which the tumour has arisen. Proximity to a large artery is the most frequent source of pulsation in these tumours, of which six examples are brought forward. Three occurred at St. Bartholomew's Hospital. In one of them, an encephaloid tumour originating in the humerus, the ligature of the subclavian was recommended, but not assented to by the patient. In another, it was agreed in consultation that sufficient ground existed for believing the tumour to be a popliteal aneurism, and, accordingly, the femoral artery was tied in the middle of the thigh. The tumour consisted of a compound of soft fibrous and dense osseous tissue, the latter situated deeply, and extending around the femur, in which it appeared to have originated. Of the other three cases, two were communicated by Mr. Hodgson, of Birmingham, and the third by Mr Lawrence. The latter is already recorded in the 17th volume of the transactions of the Society. There are six examples of pulsating tumours, differing in their nature, and originating in different bones, but agreeing in the circumstance, that no other source of pulsation was discoverable in them than the contiguity of large arteries. To the same class of cases, the author considers that the important one recorded by Mr. Guthrie belongs, in which a medullary tumour, about as large as an adult head, situated upon the right nates of a female, presented so decidedly the characters of aneurism, that it was believed to be so by Sir Astley Cooper, and other experienced surgeons who were consulted upon the case, and, accordingly, a ligature was placed around the common iliac artery.

On the subject of pulsation in the tumours of bone, dependent on the developement of blood-vessels and blood-cells forming a sort of erectile tissue within the tumour, Mr. Stanley remarks, "that in the case of recent occurrence in St. Bartholomew's Hospital, there certainly was a structure capable of enlargement by the distention of its vessels and cells, and assuming these to have been continuous with the surrounding arteries, the rush of blood into this structure might give the whole mass a pulsation resembling that of aneurism. Two cases are related, in which the pulsation of the tumour was ascribed to a similar cause. In one, communicated to the author by Mr. John Lawrence, junior, the tumour, originating in the upper part of the femur, was more of a gelatinous than encephaloid character, and its vascular tissue formed more than one half its bulk. The other, which was furnished by Mr. Luke, of the London Hospital, was a tumour of the lower part of the femur, and in consequence of suspicion of

aneurism, the femoral artery was tied. The limb was subsequently amputated, when the tumour was found to consist of cells of varying size, some of the largest being about an inch in diameter, and they were filled with blood.

Of pulsation in the tumour of bone dependent on the enlargement of the arteries of the osseous tissue, several cases are referred to; one related by Dupuytren; the others by Pelletan.

One circumstance in the history of these different forms of pulsating tumour is especially noticed by the author, as it appears to have a material influence on the production of pulsation in them; this is, the density and resistance derived in one or other direction from the bone or its coverings. A tumour originating in soft parts, and unconnected with any bone, but situated close to a large artery, and confined within resisting structures, and thus approximating in its conditions to the pulsating tumour of bone, may, like it, pulsate in a manner to be mistaken for aneurism. An example is given of a man admitted into St. Bartholomew's Hospital, under the care of Mr. Earle, with a pulsating tumour below the left clavicle, which presented all the characters of aneurism, and, accordingly, a ligature was placed around the subclavian artery. The tumour subsided sufficiently to confirm the opinion entertained of its nature, and the patient was discharged; six years afterwards he was again admitted with general derangement of the health, from which he sunk. On dejection, the axillary artery presented no indication of having been the seat of aneurism. Immediately behind the artery was a solid tumour, which had originated within the sheath of a large nerve.

After some observations, tending to show the little value to be attached to the presence of bellows' sound in the diagnosis between aneurism and the pulsating tumour of bone, the author proceeds to relate the case of pulsating tumour of the ilium which has recently occurred in St. Bartholomew's Hospital, in which a ligature was placed around the common iliac artery. The patient, a man aged forty-two, had, on the inner side of the right upper arm, a tumour about the size of a small orange, very loosely connected with the surrounding structures, free from pain, and without pulsation. This tumour was first observed about ten years ago, and during the last three years it had ceased to grow. The pulsating tumour of the pelvis had its chief attachment to the left ilium, and projected from both surfaces of the bone. It reached downward to Poupart's ligament, and to the extent of about three inches into the abdomen. It felt moderately firm, and a little below the crista, near the anterior superior spine, a small movable piece of bone was discovered, apparently involved in the tumour. Everywhere within the reach of the fingers, the tumour pulsated, not with a thrill or vibration, but with the deep heavy beat of aneurism. By the ear resting against the abdominal parietes, a bellows' sound was plainly recognised. After a minute description of the local features and constitutional phenomena of the disease, the author observes, that in deciding upon the nature and treatment of the case, the following points were involved:—was this pulsating

tumour an aneurism? and if so, from what artery had it arisen? or was it one of the pulsating tumours of bone? He then states the arguments which, in consultation, led to a preponderance of opinion in favour of this tumour being an aneurism. In the uncertainty respecting the origin of the supposed aneurism from the external or internal iliac artery, the decision would obviously be that the common iliac should be tied, and the man having decidedly expressed his feeling in favour of submitting to the operation, the author considered it his duty to undertake it. The operation was performed on Monday, 27th January. The case proceeded favourably to the middle of the second day, when symptoms of peritonitis ensued, and he sank on the morning of the third day from the operation. On examining the body, the effects of peritonitis were observed in the deeper parts and left side of the abdomen. In the wall of the left ventricle of the heart there was a medullary tumour about the size of a filbert. Medullary matter was found in the bronchial glands, and a few deposites of the same kind in the lungs. A minute description is given of the tumour in the pelvis, which was connected with the ilium, and composed of a spongy tissue, with cells and convoluted vessels distributed through it. The tumour in the arm, which had all the marks of an innocent structure, was found, to the surprise of the author, identical in structure with the tumour in the pelvis,

This paper is concluded by some remarks on the operation of tying the common iliac, or internal iliac artery, or the external iliac near its origin, tending to show that with the least risk of injury to the peritoneum, the readiest mode of reaching these vessels must be by an incision through the posterior part of the abdominal parietes.

Mr. Toynbee briefly referred to a case he had lately dissected of a young man who had died of consumption at the age of 19. The patient had a pulsating tumour of bone differing from Mr. Stanley's cases, inasmuch as it was composed almost entirely of bloodvessels, and contained no cells or other structure. It was situated at the point of ossification of the parietal bones.

Mr. Fergusson regarded the paper of Mr. Stanley with much interest. It showed the great difficulty which experienced surgeons might encounter in deciding on the true nature of certain kinds of tumours connected with the pelvic region. He had seen several cases similar to those brought under notice by the paper. Two of these cases had been under the care of Mr. Syme, of Edinburgh, and illustrated the difficulty of diagnosis of these cases, even to experienced and able surgeons. These cases occurred during his, Mr. Fergusson's, connexion with the Royal Infirmary, and he had consequently had an opportunity of seeing them. Mr. Syme had published the cases in his Clinical Reports. In one of these cases there was a swelling in the situation of the external iliac artery, which was considered to be aneurismal; other surgeons, however, were of a different opinion. Mr. Syme, however, acting chiefly on his own responsibility, determined on placing a ligature high up on the exter-

disease, it suddenly occurred to me to make the trial of producing profound intoxication. The most striking symptom in the pathology of this condition is, undoubtedly, the influence it possesses over the muscles of voluntary motion, and the excito-motory system generally. I conjectured, further, that by administering alcohol freely, it might, by entering the blood, *and independently of its intoxicating effect*, establish another condition of the nervous centres, *incompatible with the continuance of the tetanic spasm.* I had everything to hope and nothing to fear from its effects, if cautiously watched, and considering the hopeless condition of my patient, I could discover no record of the use of the remedy *so exhibited*, but therapeutics and analogy confirmed my suggestion, and directed me where experience and authority ceased to guide. The effect of alcohol in calming the subsultus of typhus is unquestioned. I determined, therefore, to be limited in its exhibition only by the appearance of the condition I desired to produce, or by the occurrence of any injurious symptoms that could be fairly traced to its use.

Being provided with a mixture of alcohol and water, in equal parts, I gave him at once six ounces of such mixture, and four ounces more in a quarter of an hour; myself sitting by to note the result. In twenty-five minutes the patient (for the first time since the attack) lay on his side, in a profound and tranquil sleep, without any appearance of apoplectic stertor or other cerebral congestion. Every muscle was in a state of quiet relaxation, and the sense of pain had vanished as if by a charm. The tumultuous action of the heart had ceased; the pulse had sunk to 60, and was fuller in volume; the features had resumed their natural expression, and the whole surface of the body was drenched in a profuse perspiration.

For seventy-two hours he was kept under the influence of the remedy, complaining of no pain, and without any return of opisthotonus or clonic spasm, the bowels acting kindly and frequently, under the use of croton oil, and the opiates being abandoned.

On the 16th day the alcoholic influence was withdrawn, as a test of his real condition, and from fear of cerebral injury. With a return of consciousness, the tetanic symptoms returned, though in a much less degree, and as instantly and perfectly disappeared when the alcohol was again exhibited.

On the evening of the 17th day the back became again arched; the breathing hurried. He was at this time able to answer questions, and to move in his bed; the clonic spasms suddenly supervened, and he expired after their subsidence, without a struggle or a single evidence of pain, apparently from exhaustion.

On reviewing this case, I think I am justified in assuming that, in failure of the usual sedative treatment, much excruciating suffering was prevented by the use of alcohol; and that it might have prevented the accession of the disease, or, at least, *its establishment in the constitution*, had it been adopted at an earlier period. The unfortunate termination of the case I am inclined to attribute rather to fatal

collapse than to the tetanic paroxysm. My only regret is, that the early and most valuable period was lost to treatment.

It appears that in Mr. Potter's case the arched form was retained, and gradually increased *during* the exhibition of the hemp extract. In my own case no opisthotonus remained during the free administration of the alcohol.

In Dr. Hutchinson's case recovery was effected under the use of the belladonna. It had no effect in the case I have detailed. I commenced with grain doses of the extract combined with other sedatives, but the symptoms became more grave in their character with each dose, and before I had time to produce constitutional toleration of the remedy, it seemed hurrying to a fatal termination.

In this part of the country this disease is of very infrequent occurrence, but at the time of this case there were two others in this town, both of them idiopathic; one under my own care, the result of exposure to cold after a febrile attack, in a young woman of twenty-two. It yielded readily to blisters on the neck, and free purgation with the croton. Of the other case, which occurred in the practice of another gentleman, I have only learnt that recovery took place. I regard this concurrence of cases as remarkable, and am disposed to attribute it to some morbific state of the present humid atmosphere; the more so, regarding its frequent occurrence in fenny and miasmatic districts.

These details exceed the limit of my wishes and of your forbearance. Their only pretensions to publicity are their truth and their presumed utility.—*London Lancet.*

Autoplasty.—M. Blandin presented to the Academy of Medicine a woman from whom he had removed a cancer of the lower eyelid. She had been operated on three times by M. Paiault of Rennes. The cancer having relapsed a third time, M. Puiault sent the patient to M. Blandin. The disease involved the whole of the lower eyelid, the corresponding region of the upper part of the nose, and a part of of the upper eyelid. M. Blandin after having extirpated all the diseased parts borrowed a flap from the forehead, to replace, in part, the very considerable loss of substance caused by the operation, this, Mr. Blandin said, he did much less with the view of repairing the loss of substance, which was not completely accomplished, than in the hope of obtaining, by the transplantation of a sound structure on the affected parts, a modification of a structure and of nutrition which might lesson the chance of relapse. This was M. Blandin's chief object in practising autoplasty in this case, and he thought he had been so fortunate as to attain it, as the operation had been performed three months, all the parts were united, and no sign of a return of the disease existed. M. Blandin felt the greater confidence in anticipating a favorable issue to the operation, as he had effected a complete cure in a similar case, by the same method, on a man whom he had operated on eighteen months ago.—***Dublin Med. Press, from Gaz. Med.***

nal iliac, or on the common iliac artery, as might seem advisable. On completing the incisions through the abdominal parietes, it was discovered that the tumour was not an aneurism; it was nevertheless removed, and the patient sunk a few days after the operation. It was then discovered that tumours of a similar kind were situated in various parts along the course of the chief arterial vessels; they were smaller in size than that removed; but it was evident that they owed any pulsation they possessed to their connexion with the arteries. In a second case, in which a tumour was also situated in the course of the external iliac, much difference of opinion existed amongst the most distinguished surgeons of Edinburgh, respecting its true nature. Eventually a ligature was placed round the common iliac artery. The patient died, and the tumour was found to be aneurismal. Another case which had come under the observation of the speaker, resembled, in many points, the cases mentioned by Mr. Stanley. The pulsation and the bruits, said to be diagnostic of aneurism, were present; he, however, refused to operate. He was led to this determination from having become recently acquainted with Mr. Guthrie's case, to which reference had been made in the paper. After death the tumour was found to be exceedingly similar to the cases mentioned in the paper. The tumour was prominent in the pelvis, both internally and externally, and the os innominatum was completely destroyed. The tumour was composed chiefly of medullary matter, clots of blood, and bony spiculæ. Mr. Nicol, of Inverness, about the time of the occurrence of these cases, had treated a tumour connected with the upper part of the shoulderbone, supposing it to be aneurismal. The case was similar to one related in the paper by Mr. Luke, inasmuch as the tumour had resulted from an injury. A ligature was placed round the subclavian. At first, the operation appeared successful, but the patient soon died, and the tumour was found to be malignant.—*London Lancet.*

Surgical Cases and Observations. *By* James Syme, Esq., *Professor of Clinical Surgery in the University of Edinburgh, and Surgeon to the Queen in Scotland.*

Case 1. *Dislocation of the Shoulder-joint, of seven weeks standing; Reduction.*—Euphemia Steele, aged 55, was admitted on the 25th of December last, with dislocation of the left shoulder-joint. It appeared, that on the 5th of November, she had fallen upon her side, and in consequence suffered much pain from of the left arm;—that she had been under surgical treatment from the 13th to the 27th, for a bruise on the elbow;—and that at the latter date, as there was nothing perceptibly wrong with the elbow, her continued complaint of pain from the shoulder downwards was discredited, while a flattening noticed under the acromion, was attributed to emaciation of the limb, from the want of exercise. A month having afterwards elapsed without any improvement, the patient applied at the Minto House Dispensary, and being there found to labour under dislocation of the shoulder, was placed under my care in the hospital.

On the 26th, after immersion in the warm bath for an hour, reduction was attempted by extending the arm above the elbow in a line with the trunk—but though the head of the bone, which lay forwards on the inner side of the coracoid process, was made to move considerably towards the socket—it could not be fairly replaced. Two days afterwards, another attempt proved more effectual. I, this time, as before, laid the patient upon her back on a table—secured a hair cushion in the axilla by means of a stuffed leather belt, fastened to a ring in the wall, and then extended by pulleys acting upon a skein of worsted attached by the "clove hitch" to the wrist, instead of the arm above the elbow. My reason for this alteration was, that during the former trial I had remarked the integuments of the arm and shoulder to be extremely tense, and hence concluded that the force might be more efficient if it were to act upon a more distant part of the limb. In accordance with this expectation it was immediately perceived that the bone yielded much more readily than it had done on the previous day; and without any snap being heard or felt, the patient soon exclaimed that her shoulder was right. On examination it was found to be so, though the slightest movement of the arm, in the way of abduction, caused the bone to quit its place, into which, however, it could be easily returned again, by slight pressure of the fingers in the axilla. A bandage applied so as to confine the elbow close to the side, kept the joint secure until its natural connexions were sufficiently restored to prevent any risk of displacement, and the patient was discharged on the 18th January.

The means employed for reducing dislocation of the shoulder-joint, should be varied according to circumstances, especially the period of its duration. Within a few hours after the injury, I have repeatedly effected reduction without any assistance, by placing one hand on the acromion, and then, having bent the fore-arm to a right angle, suddenly drawing the elbow backwards, so as at the same time to rotate the hand outwards.

The effect of this movement is well illustrated by a case which lately fell under my notice. The patient came from the country, a distance of twelve miles, for the purpose of having a dislocation of his shoulder reduced. Seeing from the position and powerless appearance of the arm, that the bone was displaced; and having felt, by putting my arm under his clothes, that its head lay in the axilla, I desired him to take off his coat. No sooner had this, with some assistance, been accomplished, than he declared that he felt his shoulder quite right, which it really was, no doubt from the action required for withdrawing his arm from the sleeve.

In ordinary cases, of from five hours to as many days duration, the most convenient method is to seat the patient upon a chair, and pull the arm at a right angle with the chest. If the resistance cannot be readily overcome in this way, it may be warrantable to employ the rude, but powerful means of extending by the hand against the heel in the axilla. In a dislocation of two weeks standing, which had been previously subjected, without success, to several very forcible attempts, I accomplished reduction almost instantaneously, by

desiring one of my pupils to place his foot in the patient's axilla, and pull his hand. When, from the lapse of time, a still greater degree of difficulty is to be anticipated, the assistance of pulleys becomes proper, together with the use of some means to lessen the force of muscular contraction. For this purpose, tartar emetic, bleeding, and the warm bath, are generally employed. In the earlier part of my practice, I generally combined the effects of these nauseating and depressing influences; but the one last mentioned seems to be quite sufficient of itself; and being not unpleasant to the patient, either at the time or afterwards, the others had better be omitted. From the variety of directions which have been adopted by different practitioners, for extending the arm, it might seem as if the degree of force were of more consequence than the line of its operation; while the truth, I believe, is, that success depends very much upon the limb being held, during the extension, near the side of the body, so as to relax the pectoral and dorsal muscles, which constitute the margin of the axillary hollow. Hence the success attending the plan of pulling against the heel in the axilla; and hence the propriety of extending in a line with the trunk, when the amount of difficulty anticipated suggests the sacrifice of convenience for efficiency. The extending power may act either on the arm above the elbow, or on the wrist. The former situation allows the fore-arm to be used as a lever for causing rotation, but exposes the integuments and muscles to compression, which must always be opposed to the object in view,—and as in the case above related, may prevent it from being attained. That it does not necessarily thus impede success, however, will appear from the following cases.

Case 2. *Dislocation of the Shoulder-joint, of seven weeks standing, reduced.*—William Stewart, aged 56, was admitted on the 3d December, 1840, seven weeks after sustaining a dislocation of the right shoulder-joint, for which he had been treated in the country by a bone-doctor, as suffering merely from the bruise occasioned by a fall on his side. After having been an hour in the bath, he was laid horizontally, and subjected to extension by means of the pulleys, in the direction of the long axis of the body. The bone regained its place without any snap, but escaped on the extension being discontinued,—and therefore, when again reduced, was secured by a bandage confining the arm to the side.

Case 3. *Dislocation of the Shoulder-joint, of four weeks standing: Reduction.*—James Grieve, aged 50, was admitted on the 2d January, 1844, four weeks after having his left shoulder-joint dislocated. He had been under the care of a surgeon, who had tried to reduce the bone, and assured him he had done so, though no relief or alteration in his feelings was afforded. He was immediately subjected to the pulleys—without success; but next day, after being an hour in the bath, had the bone restored to its place.

Case 4. *Dislocation of the Shoulder-joint, of four weeks standing: Reduction.*—Elizabeth Gair, aged 53, was admitted on the 30th of November, 1844. She stated, that on the fourth of the same month she had fallen on her right elbow; that a surgeon to whom she immediately afterwards applied, told her the shoulder-joint was dislocated, and tried to reduce it by means of his heel in the axilla, and that then (experiencing no relief, though assured the bone was replaced,) she had recourse to a "*bone-setter*," who made an attempt which did not prove more successful. On the 2d of December, after being in the warm bath, the patient was laid upon a table, with a hair cushion secured in her axilla. Extension was then made from above the elbow by pulleys, and the bone very soon returned into its socket, with a distinct snap. As abduction of the arm was found to cause renewal of the displacement, I bandaged the limb as usual to the side.

In Dislocation of the Hip-Joint upwards and backwards, the extending force may act either upon the ankle or above the knee; but as rotation of the limb very considerably conduces to replacement, and as this movement is best effected by means of the leg used for a lever, while the knee is bent, the preference should be given to extension from above the knee. It may be added, that the extensors of the hip, being flexors of the knee, are put very much upon the stretch, if the knee is kept straight, while the limb is extended, as it ought to be, in the direction which the thigh bone assumes in this form of dislocation.

Case 5. *Dislocation of the Hip-joint of five weeks standing:—Reduction.*—James Millar, aged 40, was admitted on the 23d of January last, five weeks after being overwhelmed by a fall of earth, while his legs were crossed. The left limb was nearly two inches shorter than the right one, and in all other respects exhibited very distinctly the characters of dislocation of the hip-joint on the dorsum ilii. Next day, after the usual preparation in the warm bath, he was subjected to extension from the ankle, without success, the lever afforded by the foot for causing rotation, being obviously very inefficient, and the muscles on the back part of the thigh feeling extremely tense. The pulleys were then made to act above the knee, and speedily restored the bone to its place.

Case 6. *Dislocation of the Thigh-bone, upwards and backwards, primarily, on the dorsum ilii, secondarily, into the ischiatic notch:—Reduction.*—James Hunter, aged 18, was admitted on the 13th February last, suffering from the effects of an injury caused the preceding day by a railway carriage, which threw him down with great violence. In addition to some superficial bruises, the right thigh-bone was dislocated upwards and backwards. The process of reduction was conducted as usual, and apparently with success, as the bone distinctly moved, and grated under my hand, which rested upon the trochanter, the characteristic deformity at the same time disappear-

ing. The injured limb, instead of being almost two inches shorter, and turned inwards, so that the toes rested upon the instep of the other foot, seemed hardly at all diminished in length, and had become quite straight in its direction. But the limb, though nearly, was not quite of the proper length; the foot, though no longer inverted, did not admit of rotation outwards; the thigh had a stiff constrained aspect; and the patient's back, instead of resting flat upon the mattrass, remained in an arched form, unless the thigh was raised into a position of semiflexion on the pelvis. These characters denoted dislocation of the thigh-bone into the ischiatic notch, and led to a repetition of the process for reduction, which very soon had the desired effect, and the appearance of the limb became in every respect natural.

The important feature of this case is the secondary dislocation that took place during the reduction. In more than one instance which has fallen under my observation, the same change of circumstances occasioned the serious error of supposing that the bone had returned to its proper place, while it had merely shifted into the notch; and as that excellent authority, Sir A. Cooper, though he has warned against the risk of this occurrence in reducing dislocation into the foramen ovale, has not noticed it with regard to the more common case of dislocation on the ilium, or pointed out the deceitful alteration of appearances so induced, I hope the instance here related will not be without use.

In regard to the comparative frequency of the different dislocations to which the hip-joint is liable, Sir A. Cooper has stated their respective numbers in twenty cases that had fallen under his own observation,—on the dorsum ilii, 12; into the ischiatic notch, 5; into the foramen ovale, 2; and on the pubis, 1. It is curious that of 10 cases which have been reduced in my practice in the Royal Infirmary during the last twelve years, the proportion is almost precisely the same.

On the Pubis.

Alexander Grieve, aged 23,—recent.

Into the Foramen Ovale.

Hamilton Hamill, aged 45,—recent.

Into the Ischiatic Notch.

James Inglis, aged 56,—recent.

Lawrence Smith, aged 18,—two weeks standing.

On the Dorsum Ilii.

William Scott, aged 36,—9 weeks standing.

Elizabeth Waters, aged 26,—6 weeks do.

William Thomson, aged 50,—recent.

Jane Millar, aged 40,—5 weeks standing.

James Hunter,—recent.

A boy, aged 14,—recent.

There was another dislocation into the ischiatic notch, which I did not reduce, as the patient was dying from rupture of the bladder.

Lond. and Ed. Monthly Med. and Surg. Journ.

Rumination in the Human Subject.—By Robert Read, Veterinary Surgeon, Crediton.—F. L——, aged twenty-four, an idiot and an inmate of the Crediton Union Workhouse, possesses this singular propensity, so foreign to man. He rejects, if offered to him, every kind of compact animal food, but eagerly devours, with imperfect mastication, farinaceous and other vegetable substances, more especially boiled potatoes, of which he is very fond; in fact, he subsists almost wholly on a vegetable diet, with the exception, occasionally, of a little broth. Animal food, when offered to him, is thrown away with displeasure. After he has made a repast, he will sometimes, in from ten to twenty minutes, begin to regurgitate and to remasticate the food over again; at other times, an hour or even more will pass away before any attempt to ruminate is made. The act with him is perfectly voluntary, as he can command it or suspend the same at his will or pleasure. The act of regurgitating his food does not produce any uneasy or disquiet feeling, neither does it create the least semblance to vomition, in which the efforts are painful and convulsive. His position is generally, when in the act of chewing his food over again, fixed, with his back against a wall; he then raises his shoulders, contracts the abdominal muscles, so as to press against the stomach, and makes an expiration. Thus the food is again, with every appearance of ease, returned to the mouth for a second mastication. This act of rumination I have no doubt he continues until he has brought all the solid parts of his food into a semi-fluid state. He seems to enjoy the process of rumination more than his meal; as, in the latter, it is hastily devoured, whilst in the former he seems to be quiet, calm, and pleased. Excitement or alarm, or any mistrust or attention to him, will make him suspend the act, but as soon as such causes are absent, he again returns to rumination, chewing the food over again. Rumination is peculiar only to animals which are classed under the order ruminantia, herbivora, possessing a plurality of stomachs. In the ox, the food does not return again to the same receptacle from which it is regurgitated. Rumination therefore in man must differ in this respect, as it is highly improbable that there is more than one stomach in man-ruminants; but the comparative repose and quiet in each is not dissimilar during the act. The reason, speaking physiologically, why this man-ruminant refuses animal food, may be from the change effected in the stomach during digestion, whereby something nauseous is eliminated, rendering the pellet returned to his mouth disagreeable to the taste, whilst a diet purely vegetable during the digestive process may generate a saccharine agent, and thus render its rumination more pleasing to him. Some cases are recorded in which the act of rumination in man is one of a painful effort, attended with spasmodic and other convulsive signs, effusion of tears, and the eyes bursting from their orbit. It is not the case with the one I have detailed. Many of the readers of *The Lancet* can now theorize on the subject of rumination in man; I have supplied the outlines of the case as near as I can. Comparative anatomists agree that all ruminant animals are quadrupeds, "viviparous," and have

four stomachs; but in the case of this poor idiot there is an exception to the general rule, which can only be determined by an examination after death. Diversity exists as to the relative quality of the food for rumination in man and the ox; the latter scarcely, if ever, returns farinaceous food or boiled bulbous roots, as by the first mastication and the action of the paunch they are reduced sufficiently to a pultaceous mass; the comminuting process is only required the second time when staminaceous food forms their diet, whilst in man who ruminates, animal food is rejected, and bulbous food is chosen for remastication, as is clearly exemplified in this case. The contractile power of his stomach seems to be very great, as when teased or irritated he will eject the fluid contents of his stomach to a considerable distance through his mouth. In so doing he must make the œsophagus a passive tube, as no resistance seems to be offered by it. In concluding this most interesting case, I can only say it is surprising that it has remained so long unheeded and unrecorded in any medical journal, although seen by so many medical men. I beg pardon of them for publishing it, but must say that the ruminating part of the question is more applicable to my province and practice.—*Lancet.*

BIRMINGHAM PATHOLOGICAL SOCIETY,—JAN. 4TH, 1845.

Malignant Tumor of the Inferior Maxilla.—Mr. Hodgson exhibited a portion of the lower jaw, which he had removed by operation, affected with malignant disease, which had commenced in the laminated structure of the bone, and not, as is usual, in the medullary membrane. Mr. Freer, House-Surgeon to the General Hospital, supplied the following notes of the case:—

A. Ward, aged 50, of mixed temperament, and has always enjoyed tolerable health. In the commencement of October she first perceived a small excrescence between the canine and cuspidate teeth on the left side of the inferior maxilla, and she suffered occasional lancinating pain, with bleeding; it rapidly increased in size, pressing the teeth forwards, and spread over the double teeth on the same side. Early in November she had three teeth extracted, the tumour speedily filling up the space. On the 14th of November the tumour extended from the level of the angle of the inferior maxilla to the symphysis: its level was considerably above that of the surrounding teeth, and it projected considerably into the mouth. The bone was not thickened, nor were the integuments or neighbouring glands at all implicated in the disease.

The tumour was cleanly scooped out so as to leave the alveolar structure denuded; its texture was the same as the specimen produced. The diseased structure did not appear to again encroach until the 1st of December, when it was necessary to daily destroy the new growth with escharotics, and these became insufficient to destroy it by the middle of December. The tumour continuing to encroach, Mr. Hodgson removed the portion of the left inferior maxilla from the symphysis to the angle.

Mr. Hodgson said that it appeared to be a disease of the medullary membrane. It was quite scooped out, by which every particle of disease seemed to be removed. It soon, however, showed itself again, when it was destroyed by nitric acid. After this it very soon came on again, and at the end of the week it had very much increased, which gave the idea that the disease originated in the medullary membrane. It was thought advisable to remove the diseased portion of the bone, and consequently the operation was performed this morning. Mr. Hodgson then described the operation. With respect to the dangers of the operation, Mr. Hodgson said that it had been stated that there was much danger of the patient being suffocated from the retraction of the tongue, and its closing the glottis at the time of division of the muscles connecting it with the maxilla. He had operated three times, and had not been aware of any such occurrence, and he did not think it had been noticed by other operators. He should rather attribute any symptoms of suffocation to the blood having found its way into the larynx, a circumstance not at all uncommon in operations connected with the tongue and palate.

Fibrous Tumour of the Inferior Maxilla.—Mr. Hodgson then presented another tumour, which he had removed this morning from the inner portion of the inferior maxilla of a woman; it was easily removed. It was composed of a hard fibrous substance, interspersed with numerous spiculæ of bone.

Mr. Hodgson said that he removed a similar disease from a woman some years since; the disease returned in a very sluggish manner in the condyle of the maxilla, which he had not thought necessary to disarticulate at the time of taking out the diseased portion, but had cut the bone through just below it. He regretted now that he had not disarticulated the condyle, for he left only a small portion of the bone behind. The case, however, was going on very well. Mr. Hodgson does not believe that this disease is malignant, as some cases had been cured by the application of iodine and mercury, and they generally got well if completely removed.

Encysted Tumour in the Liver: Hydatids.—Mr. Walter Freer then exhibited a liver enlarged, and having a very large cyst in its upper and posterior portion containing hydatids.

Thomas Sheldon, aged 36, a miner, previous to this illness, always enjoyed excellent health. August, 1843, was suddenly seized with a severe lancinating pain in the right hypochondrium, which became easier, but did not entirely disappear after the application of leeches, and free evacuation of the intestines. His general health beginning to suffer, and the dull pain in the hypochondrium continuing, he was admitted into the Hospital, January, 1844. On admission he had a firm even tumour, conveying to the fingers an obscure sense of fluctuation, slightly bulging out the ribs behind on the right side, and completely filling the right hypochondrium, reaching down to the iliac region on this side; it extended across the epigastric region into

the left hypochondrium, but in the mesial line it did not reach lower than the umbilicus. In February, 1844, he suffered severe pain in the right hypochondrium, and at the painful part a rubbing creaking sound was audible, and by the hand a most distinct fremissiment could be felt. This pain and the physical signs continued till March 20th, when they ceased; the dull pain in the right hypochondrium, which he had felt from the commencement, alone remaining. The natural functions performed almost as in health; pulse generally slow; secretions generally natural; complexion sallow; and extremities emaciated. In April he left the Hospital.

He was re-admitted in the commencement of December, with considerable derangement of the general health; urine scanty; œdematous legs; irregular intermitting action of the heart, and more bulging of the ribs on the right side. The action of the heart became more intermittent and irregular. On the 22d he became delirious, and died twenty-four hours after the supervention of the delirium.

Autopsy.—Liver weighed fifteen pounds, the increase being principally confined to the right lobe, which was converted into an enormous cyst, lined with a thick mucous false membrane, and containing some pints of a straw-coloured fluid, in which floated a large number of distinct hydatids, varying in size from a walnut to a pea. The left lobe was not much larger than in health, but presented a nutmeg section. Gall-bladder, natural; heart-cavities, large, with hypertrophied parietes; lungs, healthy; slight pleuritic effusion on the right side. No other morbid appearance in any of the other viscera.—*Prov. Med. & Sur. Journal.*

Process for the Detection of Arsenic. By H. Letheby, M. D., Lecturer of Chemistry at the Medical School of the London Hospital.—Of the many processes which have from time to time been suggested, and more or less lauded, too, for the detection of arsenic in cases of poisoning, I am confident that but few of them have been put to the test of experiment with organic mixtures, by way of determining their applicability and delicacy, and the manipulator who is accustomed to seek for arsenic, often in very small quantity, in the contents of the stomach, or in the tissues of poisoned animals, has learned to look with distrust upon every new suggestion, relying more upon his own tact with regard to some particular process to which he is accustomed, than caring to re-educate himself by adopting any new one. I put forward, however, the following observations, by reason of some little experience in this department of chemistry, and I am convinced, to speak in a general way, that the apparatus, described in The Lancet of February 1st, and which was proposed by Berzelius, for the detection of arsenic in cases of poisoning, is not at all applicable, and more particularly in the hands of a novice; for you cannot by that means combat the frothing of the liquor, or prevent small particles of the zinc escaping from the central tube into the acid liquor without, and so liberating and losing the arseniuretted

gas. Again: to be certain of decomposing this gas, the exit pipe must be heated from the commencement, and if care has not been taken to expel the air, it will assuredly explode. Moreover, there is tact required in the application of the heat, or we either get the tube softened and bending, and perhaps blowing out, or the arsenium, by the great heat, is carried over, or else the gas is not decomposed at all; and if it so happen that the tube is a little too small, or gets closed up by a film of arsenium, the gas then bubbles through the acid liquor and is lost, and we cannot make a quantitative analysis: all these are difficulties in the way even of the experienced, but they are most formidable to the novice.

In place of this process, which I have long given up, I adopt the following, which is a modification of Lassaigne and Reinsch, and I never find the least difficulty in detecting even very small quantities of arsenic. Supposing I have the contents of a stomach to test. They are first boiled in distilled water, slightly acidulated with acetic acid, then filtered, and again and again boiled and filtered; mix these liquors and divide into two equal parts. Evaporate one part nearly to dryness, and then heat with about twice its bulk of sulphuric acid, until it is quite charred, and begins to evolve the acid. This mixture is then to be diluted and introduced, by little and little, into a large Wolfe's bottle, from which hydrogen is being slowly evolved from pure zinc and dilute sulphuric acid. The gas is to be conveyed by means of a bent tube, drawn fine at its remote point, to the bottom of a tall glass, containing a solution of nitrate of silver; it will occasion a black precipitate in it, and by taking the precaution of not allowing the gas to come over too quickly, and by means of the fine tube to make it pass through in very small bubbles, we shall be certain to decompose the whole of it. To this black turbid solution of nitrate of silver is then to be added muriatic acid, until all the silver is precipitated, and a little of the acid remains in excess; boil for a few minutes, and filter and evaporate the filtered liquor to dryness; the residue, if there be any, is to be dissolved in a little distilled water, and carefully precipitated by ammoniacal nitrate of silver; if any arsenic had been present, it would by this process have been converted into arsenic acid, and this with the ammoniacal nitrate would produce the red precipitate of arseniate of silver, every 464 grs. of which is equivalent to 100 grs. of arsenious acid, or 76 of arsenicum. This arseniate of silver may be again reduced by means of black flux, or charcoal, and preserved for evidence. The other half of the suspected liquor is to be slightly acidulated with muriatic acid, and boiled for an hour or two with a known weight of clean copper in strips; if arsenic is present, it will attach itself to the metal, giving it a black coating. The copper being removed, dried, and weighed, indicates how much heavier it may become, and to be certain of this being arsenic, they should be placed in a small green glass tube, closed at one end, and by means of a spirit lamp, with a large flame or a blow-pipe, kept at a red heat for a little time; if arsenic be there,

it will sublime either as a white or black ring. After this, the copper is to be again weighed, and its loss estimated.

Supposing, however, that the substance to be tested were a piece of muscle or liver. It is to be charred by means of sulphuric acid, as in the first case, and the liquor diluted and divided into two portions; the one to be treated by Lassaigne's process with the nitrate of silver; the other to be nearly neutralized by carbonate of soda, and boiled, as in the last case, with the clean copper.

Now the advantages of these processes are, that they are readily applicable and will detect small quantities. The frothing is obviated, and you are not likely to be annoyed by the fallacies which antimony may occasion. Not but that antimony will decompose the nitrate of silver, and be deposited on the copper like arsenic; but then the subsequent stage of the processes determines this.

In conclusion, I may mention as a caution, that there is again in the market a large quantity of sulphuric acid contaminated with arsenic; I have found, in a recent sample, as much as one grain in the fluid ounce.—*London Lancet.*

On the Administration of Intoxicating Doses of Alcohol in Traumatic Tetanus. By J. W. Stapleton, Trowbridge.—Charles P——, a farmer's labourer, aged seventeen, sustained on the 24th Dec. last, a lacerated wound of the palmar surface, and outer edge of the carpus of the right hand. It was inflicted by a chaff-cutting machine, the blade of which had stripped off a flap of the integument, leaving an irregular contused edge; no tendinous, muscular, or nervous structures were involved, nor was the palmar fascia exposed. Those portions of the flap whose texture was destroyed were at once removed by the knife, and the rest was replaced and supported with adhesive straps, and a light bandage covered with the cold-water dressing. On the sixth day, the parts had nearly united, and a healthy granulating surface presented where there had been loss of substance. On the afternoon of the twelfth day, (having been dressed in the morning,) he came back to my surgery, complaining of intense pain, extending from the lower extremity of the sternum, backwards, to the spine. On stripping him, I found the sternum and lower ribs powerfully retracted by *tonic* spasm of the diaphragm, and much tension of the muscles of the neck and jaw. The opisthotonus, which was permanent, was at times increased by violent clonic spasms of the same muscles; when these subsided, the arched form of the neck remained unaffected by their remission. The wound was bathed in an offensive sanious discharge, and had become extremely painful.

As a first and obvious duty, I removed from the wound every source of pressure and irritation, applying a simple poultice, and had the patient put to bed. Three drops of croton oil were placed upon the tongue, and a blister laid along the whole course of the spinal column; and as soon as the bowels had acted, a grain of the acetate of morphia was given, and repeated every hour.

In three hours I visited him again. All the symptoms were in-

creased; there was a deep hollow at the scrobiculus cordis, and excruciating pain throughout the diaphragmatic region. The muscles of the neck were perfectly rigid, and those of the dorsal and lumbar regions participating in the tetanic spasm, all the joints of the trunk of the body seemed anchylosed, so that when removed from the bed, he lay in the arms of those who carried him like a marble statue. He still referred all his pain to the diaphragm, and to the course of the recti. The abdomen was forcibly thrust forward, and was immovable during the respiratory act, which was maintained wholly by the thoracic muscles. No complaint was made of the hand from this time. Morphia was again given and continued throughout the night, without any mitigation of the symptoms.

On the following morning, the disease was evidently proceeding with rapidity to a fatal issue. The pulse was eighty-five, labouring and constricted; the heart's action tumultuous and irregular; the skin of the natural temperature, and the intellect unimpaired. I gave the following injection.—Oil of turpentine, one oz.; tincture of opium, two drachms; assafœtida mixture, twelve oz.; hop water, eight oz.; mix them for an injection. At the same time, two grains of morphia were sprinkled upon the surface of the blister, and the following medicines directed to be given every alternate hour—Take assafœtida, eight grains; Camphor, six grains; let them be made into a bolus to be taken immediately, and repeated every two hours; and with these take acetate of morphia, one grain; extract of belladonna, one grain; extract of conium, four grains; made into a pill to be taken one hour after the bolus, and repeated every two hours.

Four hours after this he was evidently worse. Blisters were now placed on the abdomen, over the recti muscles; and as the injection was retained, I gave him three drops of croton, which soon acted copiously, yet without any remission of the symptoms.

A fair trial of the opiates and antispasmodics had now been given; twenty-six hours having been fruitlessly occupied in their administration. The progress of the case had been uninterrupted from bad to worse. The patient lay immovably fixed, his weight resting on the back of the head and the sacrum; the trunk of his body between these two points forming an arch, whose concavity was towards the mattrass, and within which a child might have crept without touching him. He could not open his mouth further than to allow a pill to be dropped within the teeth; deglutition was difficult, and the lips were distorted into a horrible sardonic grin; his eyes glared from their sockets, and every feature was indicative of the extremity of anxiety and suffering. He was perfectly sensible, and would reply to questions, but always as briefly as he could, and begging to be left alone. Pulse 90, sharp and jerking; skin hot and dry; cheeks flushed. I make this detail to enable me to contrast this picture with that which was presently assumed.

As those remedies which experience and authority had sanctioned seemed utterly nugatory, and in the assurance of the speedy death of my patient if I could oppose no check to the progress of his frightful